

## Appendix C.

# Statistical Methodology

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### MAIL LIST MODEL

Classification analysis was performed to predict the probability that an addressee on the 1992 mail list operated a farm, and thereby separated the preliminary mail list into probable farm and probable nonfarm classes. The analysis was used to reduce the preliminary census mail list of 3.78 million records to a final mail list size of 3.55 million records. All 3.55 million addresses on the final mail list received a census of agriculture report form.

Records from the 1987 final census mail list were used to build a 1992 prediction model for the 1992 analysis. Classification and Regression Trees (CART) software analyzed characteristics of known 1987 farm and nonfarm operations to determine which were most useful in predicting farm and nonfarm classes. Record characteristics such as the source of the mail list record, number of source lists on which the record appeared, expected value of agricultural sales, and geographic location were used to separate mail list records into model groups. (Sources included the previous agriculture census mail list, the Internal Revenue Service administrative records, U.S. Department of Agriculture, and special commodity lists.) The proportion of 1987 census farm records in each model group was calculated to provide an estimate of the probability that an addressee in the group operated a farm.

After the model groups were defined, each address record on the 1992 preliminary mail list was assigned to a model group by matching record characteristics to model group characteristics. Records belonging to the groups with the highest farm probability were those more likely to be farms according to the classification tree methodology. The model, followed by analyst reviews, was used to remove 229,700 records from the preliminary mail list (those in model groups with the lowest farm probability), and thereby designated the 3.55 million records with the highest farm probability to receive the census report form. This procedure was used to obtain a more complete census enumeration of farm operations without excessive respondent burden and data collection cost.

### CENSUS SAMPLE DESIGN

Each of the 3.55 million name and address records on the census mail list was designated to receive one of three different types of census report forms. The three forms were the nonsample form, the screener form, and the

sample form. Sections 1 through 20 and 27 through 32 of the sample form are identical to sections on the nonsample form. The sample form, sections 21 through 26, contains additional questions on usage of fertilizers and chemicals, farm production expenditures, value of machinery and equipment, value of land and buildings, and farm-related income. The screener form is identical to the nonsample form with questions added in section 1 to allow quick identification of nonfarm addresses. These three different forms were used to reduce the response burden of the census, while providing reliable information on a large number of data items.

The sample form was mailed to all mail list records in Alaska, Hawaii, and Rhode Island, and to a sample of records in other States selected from the final mail list. Addresses were selected into the sample with certainty (1) if they were expected to have large total value of agricultural products sold or large acreage, (2) if they were multiunit operations (i.e., separate farms in more than one location), (3) if they had other special characteristics, or (4) if they were in a county with less than 100 farms in 1987. Other addresses in counties containing 100 to 199 farms in 1987 were systematically sampled at a rate of 1 in 2, and other addresses in counties containing 200 farms or more in 1987 were systematically sampled at a rate of 1 in 6. This differential sampling scheme was used to provide reliable data for the sample sections of the report form for all counties. When a nonsample large farm was identified during processing, a supplemental form that contained the additional sample data inquiries was mailed.

To determine which mail list records would receive the screener form, all mail list records not designated for the sample were sorted by model group farm probability as specified by the mail list model. The 412,000 mail list records in the model groups with the lowest probability of being farms and with an expected total value of agricultural product sales less than \$25,000 were designated to receive the screener report form. The remaining mail list records received the nonsample report form.

### CENSUS ESTIMATION

The 1992 Census of Agriculture used two types of statistical estimation procedures. These estimation procedures accounted for nonresponse to the data collection and for the sample data collection. These procedures are necessary because some farm operators never respond to

the census despite numerous attempts to contact them, and the estimates for the sample data are based on a sample of farm operators rather than a full enumeration.

## Whole Farm Nonresponse Estimation

A statistical estimation procedure was used to account for nonrespondent farm operators to the census. We excluded large and unique farm operations that received intensive telephone followup during census processing, assuming complete response from them. A stratified systematic sample of remaining census nonrespondents were contacted by enumerators using a computer-assisted telephone interview system. Five sample strata were defined based on expected value of sales, previous census status, and whether the record was identified by the mail list model to receive the screener report form. The nonresponse survey telephone interview was designed to provide sufficient information to determine the farm status of each record.

In situations where the nonresponse survey case could not be contacted, the contact person refused to cooperate, or when no phone number could be obtained, a screener report form was sent by certified mail.

Estimates of the proportion of census nonrespondents that operated farms were made for each stratum in the State using survey results and applied to the total number of census nonrespondents in that stratum. The number of census nonrespondents that operated farms for each county by stratum was then derived. This estimation procedure is based on the assumption that the distribution of farms in a stratum by county is the same for census nonrespondents as for census respondents.

Certain census respondent farms which exhibited "rare" commodities were designated as "ineligible" to represent census nonrespondent farms and were excluded from the nonresponse weighting operation. The procedure explained below was performed with only the eligible respondent cases: Within each stratum in a county, a noninteger nonresponse weight was calculated and assigned to each eligible respondent farm record. The noninteger nonresponse weight is the ratio of the sum of the estimated number of nonrespondent farms from the nonresponse survey and the number of eligible census respondent farms to the number of eligible census respondent farms. Stratum controls were established to ensure that this weight was never greater than 2.0. The noninteger nonresponse weight was used in the calculation of the final weight for the sample items. The noninteger nonresponse weight was randomly rounded to an integer weight of either 1 or 2 for each record for tabulating the complete count items for publication.

Table A quantifies the effect of the nonresponse estimation procedure on selected census data items. The percentages in these tables are the percents of the census values contributed by nonresponse estimation. These indicate the potential for bias in published figures resulting from nonresponse to the census. The estimates provided

in these tables do not reflect the effect of item nonresponse to individual census data items. The effect of item nonresponse is discussed in the Census Nonsampling Error section.

**Table A. Percent of State Totals Contributed by Whole Farm Nonresponse Estimation: 1992**

Item	Percent of total
Farms ..... number.	11.2
Land in farms ..... acres.	7.3
Estimated market value of land and buildings <sup>1</sup> ..... \$1,000.	4.8
Market value of agricultural products sold ..... \$1,000.	2.6
Harvested cropland ..... acres.	5.4
Corn for grain or seed ..... acres.	2.9
Wheat for grain ..... acres.	3.2
Livestock and poultry inventory:	
Cattle and calves ..... number.	7.4
Hogs and pigs ..... number.	1.2
Hens and pullets of laying age ..... number.	.7

<sup>1</sup>Data are based on a sample of farms.

## Sample Estimation

Sample data estimates the population totals that would have resulted from a complete census for the items in sections 21 through 26 of the sample report form. The estimates were obtained from a ratio estimation procedure that resulted in the assignment of a weight to each respondent record containing sample items. For any given county, a sample item total was estimated by multiplying the data items for each farm in the county by the corresponding sample weight and summing over all sample records in the county.

Each respondent sample farm was assigned a sample weight for use in producing estimates for all sample items. For example, if the weight given to a sample farm had the value 6, all sample data items reported by that farm would be multiplied by 6. The weight assigned to a sample certainty farm was 1.

Other than certainty farms, within a county, the ratio estimation procedure for farms was performed in three steps using three variables. The first variable contained eight 1992 total value of agricultural production (TVP) groups. Both the second and third variables, Standard Industrial Classification (SIC) code and farm acreage, contained two groups. The three sets of groups were as follows:

TVP	SIC	Acres
\$1 to \$999	01 All crops	1 to 69
\$1,000 to \$2,499	02 All livestock	70 or more
\$2,500 to \$4,999		
\$5,000 to \$9,999		
\$10,000 to \$24,999		
\$25,000 to \$49,999		
\$50,000 to \$99,999		
\$100,000 or more		

The first step in the estimation procedure was to classify the sample records into 32 mutually exclusive initial post strata formed by the three sets of groups. The total and sample farm counts were expanded to account for nonresponse. Each cell containing sample farm records was assigned an initial sample weight equal to the ratio of the total farm count to the sample farm count. This weight was approximately equal to the inverse of the probability of selecting a farm for the census sample.

The second step in the estimation procedure was to combine, if necessary, the 32 initial post strata to increase the reliability of the ratio estimation procedure. Any stratum that contained less than 10 sample farms after nonresponse adjustment or had a weight greater than two times the mail sample rate was collapsed with another stratum. The mail sample rate was either 2 or 6, depending on whether the county had a 1 in 2 or 1 in 6 sample selection rate. The collapsing occurred within the initial 32 post strata according to a specified collapsing pattern. After the collapsing process was completed, new total farm counts and sample farm counts were computed from each of the final post strata and were used to calculate final sample weights.

The final step consisted of assigning the noninteger final post stratum weight to the sample farm records in each post stratum. The weight is the ratio of total farm count to sample farm count in each final post stratum. The noninteger sample weight, the product of the noninteger final post stratum weight and the nonresponse weight, was randomly rounded to an integer weight for tabulation. If, for example, the final weight for the farms in a particular post stratum was 7.2, then 0.2 or one-fifth of the sample farms in this post stratum were randomly assigned a weight of 8 and the remaining four-fifths received a weight of 7.

## CENSUS SAMPLING ERROR

The sample for the 1992 Census of Agriculture is only one of a large number of possible samples of the same size that could have been selected using the same sample design. Sample refers to the sample for both the nonresponse survey and the selection of farms to receive the sample report forms. Estimates derived from all the possible samples would differ from each other only by random variation.

The standard error or sampling error of a survey estimate is a measure of the variation among the estimates from all possible samples and thus is a measure of the precision with which an estimate from a particular sample approximates the average result of all possible samples. The percent relative standard error of an estimate is defined as 100 times the standard error of the estimate divided by the value of the estimate.

If all possible samples were selected, each of the samples were surveyed under essentially the same conditions, and an estimate and its standard error were calculated from each sample, then:

1. Approximately 90 percent of the intervals from 1.65 standard errors below the estimate to 1.65 standard errors above the estimate would include the average value of all possible samples.
2. Approximately 95 percent of the intervals from 1.96 standard errors below the estimate to 1.96 standard errors above the estimate would include the average value of all possible samples.

The following example illustrates the computations necessary for producing a confidence interval for an estimate. Assume that the estimate of number of farms for a State is 94,382 and the relative standard error of the estimate is .1 percent (0.001). Multiplying 94,382 by 0.001 yields 94, the standard error; therefore, a 90-percent confidence interval is 94,227 to 94,537 (i.e., 94,382 plus or minus 1.65 x 94). If corresponding confidence intervals were constructed for all possible samples of the same size and design, approximately 90 percent of these intervals would contain the figure obtained from a complete enumeration. Similarly, a 95-percent confidence interval is 94,198 to 94,566 (i.e., 94,382 plus or minus 1.96 x 94).

Census items were classified as either complete count or sample count items. Complete count items were asked of all farm operators. Examples of complete count items were land in farms, harvested cropland, livestock inventory and sales, crop acreage, quantities harvested and crop sales, land use, irrigation, government loans and payments, conservation acreage, type of organization, and operator characteristics.

Sample count items were asked only of a sample of farm operators. These items appeared only in sections 21 through 26 of the sample report form. Sample count items were included under the following section headings: commercial fertilizers, chemicals, production expenses, farm machinery and equipment, value of land and buildings, and farm-related income.

Variability, measured as percent relative standard error, in the estimates of complete count items is due only to the nonresponse survey estimation procedure. Variability in the estimates of sample count items is due to both the nonresponse survey estimation procedure and the census sample selection and estimation procedure. Thus, variability in the sample count item estimates tends to be larger than the variability in the complete count item estimates.

Table B provides the generalized reliability estimates of the estimated number of farms in a county reporting complete count and sample count items. The top half of the table shows the percent relative standard error for estimated number of farms in a county reporting a complete count item and the bottom half a sample count item. These are derived from regression equations. Separate regression equations were used for complete count items and sample count items. Each regression equation was fit with the estimated number of farms in a county reporting an item as the independent variable and the relative variance of that estimate as the dependent variable for all counties in the State. For sample count items, only data

from counties sampled at a rate of 1 in 6 are used in the estimation of the regression equation.

**Table B. Reliability Estimates for Number of Farms in a County Reporting a Complete Count Item or Sample Count Item: 1992**

Farms	Relative standard error of estimate (percent)
<b>COMPLETE COUNT ITEM</b>	
Number of farms reporting:	
25	5.4
50	3.3
75	2.2
100	1.4
150	1.1
200	1.0
300	.8
500	.6
750	.5
1,000	.4
1,500	.4
2,000	.3
<b>SAMPLE COUNT ITEM</b>	
Number of farms reporting:	
25	32.9
50	23.9
75	20.0
100	17.8
150	15.2
200	13.7
300	12.1
500	10.6
750	9.8
1,000	9.3
1,500	8.9
2,000	8.6

To illustrate the use of this table, assume that the estimate of the number of farms reporting hogs and pigs for a particular county, as given in county table 15, is 89. Since hogs and pigs is a complete count data item, refer to the first part of table B and use the estimated percent relative standard error of the estimate from the row with farm count equal to or just less than the estimated number of farms, 89. For this example, the percent relative standard error of the estimate comes from the row for 75 farms reporting. For sample count items, follow the same procedure using the second part of table B. For counties with fewer than 100 farms in the 1987 Census of Agriculture, variability in sample count item estimates comes only from nonresponse survey estimation procedures; thus, the estimated relative standard error for a sample count item in these counties may be obtained using the first part of table B.

Table C presents the percent relative standard error of selected State data items for all farms, and table D presents the percent relative standard error of selected State data items for all farms with sales of \$10,000 or more.

Table E presents the percent standard error for percent change in State totals from 1987 to 1992. The general

purpose of the percent change estimate is to provide a relative measure of the difference in a characteristic between censuses. The relative change for a given characteristic is defined as the ratio of the difference of the 1992 and the 1987 estimate for that characteristic to the 1987 estimate. This ratio is multiplied by 100 to obtain the percent change. The percent standard error of a percent change estimate, then, is the standard error of the ratio multiplied by 100.

Table F presents the percent relative standard error for State and county totals for selected data items. The percent relative standard error of the estimate for the same item differs among counties in the State. Reasons for this are differences among counties in (1) the total number of farms, (2) the number of large farms included with certainty, (3) the size classifications of the farms sampled, (4) the amount of nonresponse, (5) the general agricultural characteristics, and (6) the specific characteristic being measured.

## CENSUS NONSAMPLING ERROR

The accuracy of the census counts are affected jointly by sampling errors, described in the previous section, and nonsampling errors. Extensive efforts were made to compile a complete and accurate mail list for the census, to design an understandable report form with instructions, and to minimize processing errors through the use of quality control measures on specific operations. Nonsampling errors arise from incompleteness of the census mail list, duplication in the mail list, incorrect data reporting, errors in editing of reported data, and errors in imputation for missing data. These specific nonsampling errors are further discussed in this section. Evaluation studies will be conducted to measure the extent of certain nonsampling errors such as coverage error and classification error.

## Census Coverage

The main objective of the census of agriculture is to obtain a complete and accurate enumeration of U.S. farms with accurate data on all aspects of the agricultural operation. However, the high cost and availability of resources for enumeration place restrictions on feasible data collection methodologies. The past six agriculture censuses have been conducted by mail enumeration with telephone contact for selected nonrespondents. The completeness of such an enumeration thus depends to a large extent on the coverage of farm operations by the census mail list.

The past five censuses of agriculture have included approximately 91 percent of farms in the United States and approximately 96 percent of agriculture production. Complete enumeration of agricultural operations satisfying the farm definition of \$1,000 or more in agricultural sales is complicated by fluctuations in agricultural operations qualifying for enumeration, the variety of arrangements under which farms are operated, the multiplicity of names used

by an operation, the number of operations in which an operator participates, the accuracy of data reporting, and other factors. A new mail list is compiled for each census because no current single list of agricultural operations is comprehensive.

An evaluation of census coverage has been conducted for each census of agriculture since 1945. The evaluation provides estimates of the completeness of census farm count and major census data items. In addition, the evaluation helps to identify problems in the census enumeration and provide information that can form the basis for improvements. The results of the 1992 Coverage Evaluation program will be published in volume 2, Subject Series (Part 2): Coverage Evaluation.

The evaluation of coverage for the 1992 census was designed to measure four components of error in the census mail list and in farm classification. Mail list error includes two components of error, a measurement of farms not on the census mail list (undercount) and a measurement of farms enumerated more than once in the census (overcount). Classification error includes two components of error, a measurement of farms classified as nonfarms in the census (undercount) and of nonfarms classified as farms in the census (overcount). Classification error arises from reporting and processing errors. Mail list undercount dominates all coverage errors. Net coverage error is defined as the difference between undercounted and overcounted farms. Measurements of these errors, as well as a description of the complete coverage program, will be available in the Coverage Evaluation report.

## **Mail List Coverage**

A major problem with mail enumeration for the census of agriculture is the difficulty encountered in compiling a complete mail list. The percentage of farms included on the census mail list varies considerably by State. Several reasons have contributed to farm operator names not being included on the census mail list—the operation may have been started after the mail list was developed, the operation may be so small as not to appear in any of the agriculture-related source lists used in compiling the census list, or the operation may have been falsely classified as a nonfarm prior to mailout. A large proportion of the farms not included on the mail list are small in both acres and sales of agricultural products.

The 1992 Census of Agriculture Coverage Evaluation used the area segment sample of the 1992 June Agricultural Survey (JAS) of the National Agricultural Statistical Service (NASS) to estimate farms not on the census mail list. The Census Bureau contracted with NASS to augment the JAS data collection. The survey data collected by NASS will be protected under the confidentiality of title 13, U.S. Code. These JAS survey records were matched to the census mail list. Records that did not match were mailed a census of agriculture report form to estimate mail list

coverage. Estimates of farms not on the census mail list are computed using a capture-recapture dual frame estimator which will be described in the Coverage Evaluation report mentioned earlier.

Table G provides coverage evaluation estimates for one component of coverage error associated with the census of agriculture; that is, the error due to farms not on the census mail list. Also provided are estimates of selected characteristics of farms not on the mail list, estimates of characteristics of farms not on the mail list as a percentage of total farms in the State, and the percent relative standard error associated with each estimate. The estimate of total farms in the State is based on census farm count plus the estimated number of farms not on the census mail list. This estimate of total farms in the State was not adjusted for the components of error associated with classification and list duplication error. Estimates of these errors will be made at the regional, rather than the State level, and will be provided in the Coverage Evaluation report mentioned earlier.

## **Respondent and Enumerator Error**

Incorrect or incomplete responses to the mailed census report form or to the questions posed by a telephone enumerator introduce error into the census data. Such incorrect information can lead, in some cases, to incorrect classification of farms. This type of reporting error is measured by the Classification Error Survey discussed later in this section. To reduce all types of reporting error, detailed instructions for completing the report form were provided to each addressee. Questions were phrased as clearly as possible based on tests of the census report form and each respondent's answers were checked for completeness and consistency.

## **Item Nonresponse**

As information flows from data collection to tabulation, various types of item nonresponses are identified on the report forms. Nonresponse to particular questions on the report form that logically should be present may create a type of nonsampling error in both complete count and sample count data. When information from reporting farms is used to edit or impute for item nonresponse, the data may be biased due to characteristics of the nonreporting respondents differing from those reporting the item. Any attempt to correct the data items may not completely reflect this difference either at the element level (individual farm operation) or on the average.

## **Processing Error**

All phases of processing for each report form are sources for the introduction of nonsampling error. The processing of the report forms includes clerical screening for farm activity, computerized check-in of report forms and follow-up of nonrespondents, keying and transmittal of

completed report forms, computerized editing of inconsistent and missing data, review and correction of individual records referred from the computer edit, review and correction of tabulated data, and electronic data processing. These operations undergo a number of quality control checks to ensure as accurate an application as possible, yet some errors are not detected and corrected.

## Classification Error

An evaluation study of classification errors was conducted in the 1992 Census of Agriculture as part of the census coverage evaluation program. A sample of census mail list respondents was selected, and these addresses were reenumerated to determine whether they were a farm or nonfarm. A farm status determination was made based on the evaluation report form and compared with the census farm status which was based on the data reported on the report form. Differences in status were reconciled.

In past censuses, the proportion of farms undercounted due to classification errors was higher for farms with small values of sales. For the 1987 census, the classification error rate was higher for (1) farms with small values of sales, (2) farms with a small number of acres, (3) full-owner farms than part-owner or tenant farms, (4) operators with principal occupation other than farming, and (5) males than females. Results from the 1992 Classification Error Survey will be published in the Coverage Evaluation report.

## EDITING DATA AND IMPUTATION FOR ITEM NONRESPONSE

The Census of Agriculture Complex Edit and Imputation System performs the following functions:

- Ensuring reasonable relationships between/among data items, values for various sizes of farms, and combinations of commodities.
- Ensuring necessary consistencies are present. There are more than 70 distinct consistency requirements.
- Ensuring geographic, legal, and physical constraints are met.

The system must perform these and similar functions for 900 data keycodes for sample records and 850 data keycodes for nonsample records.

For the 1992 Census of Agriculture, as in previous censuses, all reported data were keyed and then edited by computer. The edits were used to determine whether the reports met the minimum criteria to be counted as farms in the census. The complex edit and imputation system provided the basis for deciding to accept, impute (supply), delete, or alter the reported value for each data record item.

Whenever possible, edit imputations, deletions, and changes were based on component or related data on the respondent's report form. For some items, such as operator characteristics, data from the previous census were used when available. Values for other missing or unacceptable reported data items were calculated based on reported quantities and known price parameters.

When these and similar methods were not available and values had to be supplied, the imputation process used information reported for another farm operation in a geographically adjacent area with characteristics similar to those of the farm operation with incomplete data. For example, a farm operation that reported acres of corn harvested, but did not report quantity of corn harvested, was assigned the same bushels of corn per acre harvested as that of the last nearby farm with similar characteristics that reported acceptable yields during that particular execution of the computer edit. The imputation for missing items in each section of the report form was conducted separately; thus, assigned values for one operation could come from more than one respondent.

Prior to the imputation operation, a set of default values and relationships were assigned to the possible imputation variables. The relationships and values varied depending on the item being imputed. For example, different default values were assigned for several standard industrial classification and total value of sales categories when imputing hired farm labor expenses. These values and item relationships for the possible imputation variables were stored in the computer in a series of matrices.

Each execution of the computer edit consisted of records from only one State. The computer records were sorted by reported State and county. For a given execution of the edit, the stored entries in the various matrices were retained in memory only until a succeeding record having acceptable characteristics for some sections of the report form was processed by the computer. Then the acceptable responses of the succeeding operation replaced those previously stored. When a record processed through the edit had unreported or unacceptable data, the record was assigned the last acceptable ratio or response from an operation with a similar set of characteristics. Once each execution of the computer edit for a State was completed, the possible imputation variables were reset to the default values and relationships for subsequent executions.

After the initial computer edit, keyed reports not meeting the census farm definition were reviewed to ensure that the data were keyed correctly. Edit referrals were generated for about 25 percent of the reports included as farms; they were reviewed for keying accuracy to ensure that the computer edit actions were correct. If the results of the computer edit were not acceptable, corrections were made and the record was reedited.

**Table C. Reliability Estimates of State Totals for All Farms: 1992**

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Relative standard error of estimate (percent)	Item	Total	Relative standard error of estimate (percent)		
<b>F FARMS AND LAND IN FARMS</b>							
Farms ----- number	42 222	.9	<b>F FARM PRODUCTION EXPENSES<sup>1</sup></b>				
Land in farms ----- acres	8 297 011	.8	Total farm production expenses ----- farms	42 230	1.1		
Average size of farm ----- acres	197	1.2	\$1,000----- \$1,000	1 699 051	.3		
			Average per farm ----- dollars	40 233	1.2		
<b>M MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD</b>							
Total sales (see text) ----- farms	42 222	.9	Livestock and poultry purchased ----- farms	14 208	1.7		
\$1,000----- \$1,000	2 055 958	.3	\$1,000----- \$1,000	230 888	.9		
Average per farm ----- dollars	48 694	1.0	Farms----- \$1,000	24 667	1.3		
			Commercially mixed formula feeds ----- farms	461 703	.3		
Farms by value of sales:			\$1,000----- \$1,000	9 458	1.9		
Less than \$1,000 (see text) ----- farms	4 601	.9	Agricultural chemicals ----- farms	378 738	.2		
\$1,000----- \$1,000	1 313	1.0	Seeds, bulbs, plants, and trees ----- farms	18 804	1.4		
\$1,000 to \$2,499 ----- farms	5 945	.9	\$1,000----- \$1,000	41 102	.7		
\$1,000----- \$1,000	10 139	.9	Commercial fertilizer ----- farms	29 001	1.3		
\$2,500 to \$4,999 ----- farms	7 161	1.1	\$1,000----- \$1,000	108 844	.8		
\$1,000----- \$1,000	25 847	1.1	Agricultural chemicals ----- farms	24 321	1.3		
\$5,000 to \$9,999 ----- farms	7 687	1.2	Petroleum products ----- farms	64 381	.8		
\$1,000----- \$1,000	54 335	1.2	\$1,000----- \$1,000	40 388	1.1		
\$10,000 to \$19,999 ----- farms	5 946	1.5	Electricity ----- farms	79 225	.7		
\$1,000----- \$1,000	83 084	1.5	\$1,000----- \$1,000	22 564	1.3		
\$20,000 to \$24,999 ----- farms	1 456	1.8	Hired farm labor ----- farms	27 032	.5		
\$1,000----- \$1,000	32 362	1.8	\$1,000----- \$1,000	16 359	1.5		
\$25,000 to \$39,999 ----- farms	2 382	1.7	Contract labor ----- farms	188 671	.4		
\$1,000----- \$1,000	74 363	1.7	\$1,000----- \$1,000	3 927	3.2		
\$40,000 to \$49,999 ----- farms	884	1.8	Repair and maintenance ----- farms	17 113	2.0		
\$1,000----- \$1,000	39 220	1.9	\$1,000----- \$1,000	34 281	1.2		
\$50,000 to \$99,999 ----- farms	1 946	1.4	Customwork, machine hire, and rental of machinery and equipment ----- farms	102 175	.9		
\$1,000----- \$1,000	138 842	1.4	\$1,000----- \$1,000	10 686	1.9		
\$100,000 to \$249,999 ----- farms	2 197	—	\$1,000----- \$1,000	16 587	1.8		
\$1,000----- \$1,000	358 069	—	Interest expense ----- farms	13 746	1.6		
\$250,000 to \$499,999 ----- farms	1 242	—	\$1,000----- \$1,000	85 120	1.1		
\$1,000----- \$1,000	436 236	—	Secured by real estate ----- farms	9 385	2.0		
\$500,000 or more ----- farms	775	—	\$1,000----- \$1,000	60 918	1.3		
\$1,000----- \$1,000	802 149	—	Not secured by real estate ----- farms	7 074	2.2		
Sales by commodity or commodity group:			\$1,000----- \$1,000	24 203	1.3		
Crops, including nursery and greenhouse crops ----- farms	20 417	1.0	Cash rent ----- farms	9 844	1.8		
\$1,000----- \$1,000	696 489	.4	\$1,000----- \$1,000	57 154	.9		
Grains ----- farms	6 534	1.1	Property taxes ----- farms	40 146	1.1		
\$1,000----- \$1,000	194 857	.4	\$1,000----- \$1,000	49 989	1.3		
Corn for grain ----- farms	3 417	1.0	All other farm production expenses ----- farms	36 948	1.1		
\$1,000----- \$1,000	66 175	.4	\$1,000----- \$1,000	169 068	.5		
Wheat ----- farms	3 423	1.1					
\$1,000----- \$1,000	37 465	.4	<b>NET CASH RETURN FROM AGRICULTURAL SALES FOR THE FARM UNIT (SEE TEXT)<sup>1</sup></b>				
Soybeans ----- farms	3 630	1.1	All farms ----- number	42 230	1.1		
\$1,000----- \$1,000	80 757	.4	\$1,000----- \$1,000	334 280	.1		
Sorghum for grain ----- farms	189	1.6	Average per farm ----- dollars	7 916	1.5		
\$1,000----- \$1,000	1 183	1.0					
Barley ----- farms	906	1.1	Farms with net gains <sup>2</sup> ----- number	23 187	1.3		
\$1,000----- \$1,000	8 486	.5	\$1,000----- \$1,000	447 150	.7		
Oats ----- farms	175	2.1	Average net gain ----- dollars	19 284	1.5		
\$1,000----- \$1,000	340	3.1					
Other grains ----- farms	187	.9	Farms with net losses ----- number	19 043	1.6		
\$1,000----- \$1,000	451	.8	\$1,000----- \$1,000	112 869	1.8		
Cotton and cottonseed ----- farms	141	1.3	Average net loss ----- dollars	5 927	2.4		
\$1,000----- \$1,000	5 498	.3					
Tobacco ----- farms	8 424	1.2	<b>GOVERNMENT PAYMENTS AND OTHER FARM-RELATED INCOME</b>				
\$1,000----- \$1,000	179 243	.8	Government payments ----- farms	5 494	1.0		
Hay, silage, and field seeds ----- farms	6 780	1.0	\$1,000----- \$1,000	17 879	.6		
\$1,000----- \$1,000	29 275	.9	Other farm-related income <sup>1</sup> ----- farms	10 230	2.0		
Vegetables, sweet corn, and melons ----- farms	1 214	1.1	\$1,000----- \$1,000	43 108	3.0		
\$1,000----- \$1,000	55 236	.3	Customwork and other agricultural services ----- farms	3 050	3.6		
Fruits, nuts, and berries ----- farms	975	1.2	\$1,000----- \$1,000	16 532	6.0		
\$1,000----- \$1,000	43 290	.3	Gross cash rent or share payments ----- farms	3 997	3.3		
Nursery and greenhouse crops ----- farms	1 019	.9	\$1,000----- \$1,000	10 562	5.5		
\$1,000----- \$1,000	100 120	.2	Forest products and Christmas trees ----- farms	1 573	5.0		
Other crops ----- farms	1 360	1.1	\$1,000----- \$1,000	9 982	5.0		
\$1,000----- \$1,000	88 970	.3	Other farm-related income sources ----- farms	3 607	3.1		
Livestock, poultry, and their products ----- farms	29 998	1.0	\$1,000----- \$1,000	6 032	3.8		
\$1,000----- \$1,000	1 359 469	.2					
Poultry and poultry products ----- farms	1 771	.6	<b>COMMODITY CREDIT CORPORATION LOANS</b>				
\$1,000----- \$1,000	572 307	(L)	Total ----- farms	581	1.1		
Dairy products ----- farms	1 706	.6	\$1,000----- \$1,000	13 961	.4		
\$1,000----- \$1,000	288 061	.1					
Cattle and calves ----- farms	26 917	1.0					
\$1,000----- \$1,000	395 315	.7					
Hogs and pigs ----- farms	1 596	1.1					
\$1,000----- \$1,000	66 054	.2					
Sheep, lambs, and wool ----- farms	1 735	1.2					
\$1,000----- \$1,000	6 126	1.0					
Other livestock and livestock products (see text) ----- farms	2 347	1.0					
\$1,000----- \$1,000	31 606	.5					
Value of agricultural products sold directly to individuals for human consumption (see text) ----- farms	1 789	1.1					
\$1,000----- \$1,000	7 036	1.1					

See footnotes at end of table.

## 1992 CENSUS OF AGRICULTURE

## APPENDIX C C-7

**Table C. Reliability Estimates of State Totals for All Farms: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Relative standard error of estimate (percent)	Item	Total	Relative standard error of estimate (percent)		
<b>LAND IN FARMS ACCORDING TO USE</b>							
Total cropland	farms--	38 779	All operators	farms--	42 222		
	acres--	4 311 840		acres--	8 297 011		
Harvested cropland	farms--	34 255	Full owners	farms--	26 492		
	acres--	2 449 013		acres--	3 427 837		
Farms by acres harvested:			Part owners	farms--	12 599		
1 to 9 acres	farms--	8 530		acres--	4 315 736		
	acres--	34 452	Tenants	farms--	3 131		
10 to 19 acres	farms--	6 117		acres--	553 438		
	acres--	82 402					
20 to 29 acres	farms--	4 370	<b>OWNED AND RENTED LAND</b>				
	acres--	100 543	Land owned	farms--	39 147		
30 to 49 acres	farms--	5 089		acres--	5 813 302		
	acres--	187 038	Owned land in farms	farms--	39 091		
50 to 99 acres	farms--	4 796		acres--	5 481 628		
	acres--	320 483	Land rented or leased from others	farms--	15 835		
100 to 199 acres	farms--	2 631		acres--	2 858 287		
	acres--	351 049	Rented or leased land in farms	landlords--	42 718		
200 to 499 acres	farms--	1 842		farms--	15 730		
	acres--	544 749	Rented or leased to others	acres--	2 815 383		
500 to 999 acres	farms--	621		farms--	4 893		
	acres--	422 309		acres--	374 578		
1,000 acres or more	farms--	259	<b>OPERATOR CHARACTERISTICS</b>				
	acres--	405 988	Operators by place of residence:				
Cropland:			On farm operated		30 940		
Pasture or grazing only	farms--	23 759			.9		
	acres--	1 524 399	Not on farm operated		8 071		
Other cropland	farms--	9 137			1.0		
	acres--	338 428	Not reported		3 211		
Total woodland	farms--	27 917	<b>OPERATORS BY PRINCIPAL OCCUPATION</b>				
	acres--	2 600 441	Operators by principal occupation:				
Pastureland and rangeland other than cropland and			Farming		19 571		
woodland pastured	farms--	10 171			1.0		
	acres--	1 100 248	Other		22 651		
Land in house lots, ponds, roads, wasteland, etc.	farms--	24 753	<b>OPERATORS BY DAYS WORKED OFF FARM</b>				
	acres--	284 482	Operators by days worked off farm:				
Irrigated land	farms--	2 312	Any		23 465		
	acres--	61 759	200 days or more		16 795		
Acres irrigated:			<b>OPERATORS BY SEX</b>				
1 to 9 acres	farms--	1 318	Operators by sex:				
	acres--	4 043	Male	farms--	37 993		
10 to 49 acres	farms--	685		acres--	7 737 603		
	acres--	15 225	Female	farms--	4 229		
50 to 99 acres	farms--	172		acres--	559 408		
	acres--	11 535	Average age of operator	years--	55.6		
100 to 199 acres	farms--	84			1.3		
	acres--	11 115	<b>FARMS BY TYPE OF ORGANIZATION</b>				
200 to 499 acres	farms--	.7					
	acres--	13 551	Individual or family (sole proprietorship)	farms--	36 866		
500 to 999 acres	farms--	6		acres--	6 259 079		
	acres--	(D)	Partnership	farms--	3 786		
1,000 acres or more	farms--	2		acres--	1 195 176		
	acres--	(D)	Corporation:				
Harvested cropland irrigated	farms--	2 258	Family held	farms--	1 160		
	acres--	60 722		acres--	690 472		
Pasture and other land irrigated	farms--	97	More than 10 stockholders	farms--	30		
	acres--	1 037	10 or less stockholders	farms--	1 130		
Land under federal acreage reduction programs:			Other than family held	farms--	167		
Diverted under annual commodity programs	farms--	1 697		acres--	67 240		
	acres--	22 582	More than 10 stockholders	farms--	20		
Conservation Reserve or Wetlands Reserve	farms--	1 617	10 or less stockholders	farms--	147		
Programs	acres--	61 222	Other—cooperative, estate or trust, institutional, etc.	farms--	243		
		1.3		acres--	85 044		
<b>VALUE OF LAND AND BUILDINGS<sup>1</sup></b>							
Estimated market value of land and buildings	farms--	42 230	<b>Hired Farm Labor</b>				
\$1,000--		13 534 228					
Average per farm	dollars--	320 488	Hired workers by days worked:				
Average per acre	dollars--	1 636	150 days or more	farms--	6 652		
		1.1		workers--	15.8		
		1.0	Less than 150 days	farms--	16 046		
		1.5		workers--	7.7		
		1.3			24.2		
					54 251		
<b>VALUE OF MACHINERY AND EQUIPMENT<sup>1</sup></b>							
Estimated market value of all machinery and equipment	farms--	41 971	<b>INJURIES AND DEATHS</b>				
\$1,000--		1 388 837					
Average per farm	dollars--	33 090	Farm-related injuries:				
		1.1	Operator and family members	farms--	331		
		.9		number--	385		
		1.4	Hired workers	farms--	381		
				number--	684		
					.5		
<b>AGRICULTURAL CHEMICALS<sup>1</sup></b>							
Commercial fertilizer	farms--	28 903	Farm-related deaths:				
acres on which used--		2 082 495	Operator and family members	farms--	14		
		.9		number--	14		
		1.3	Hired workers	farms--	2		
				number--	(D)		

See footnotes at end of table.

## C-8 APPENDIX C

## 1992 CENSUS OF AGRICULTURE

**Table C. Reliability Estimates of State Totals for All Farms: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Relative standard error of estimate (percent)	Item	Total	Relative standard error of estimate (percent)		
<b>F FARMS BY SIZE</b>							
1 to 9 acres	farms--	3 357	.9	Cattle and calves sold	farms--	26 917	1.0
	acres--	13 789	1.0	number--	855 634	.8	
10 to 49 acres	farms--	10 361	.9	\$1,000--	395 315	.7	
	acres--	286 026	1.0	farms--	2 085	1.1	
50 to 69 acres	farms--	4 010	1.1	number--	412 736	.3	
	acres--	233 023	1.1	Hogs and pigs sold	farms--	1 596	1.1
70 to 99 acres	farms--	4 454	1.1	number--	715 452	.3	
	acres--	371 727	1.2	\$1,000--	66 054	.2	
100 to 139 acres	farms--	4 720	1.2				
	acres--	549 744	1.2				
140 to 179 acres	farms--	3 109	1.3	Sheep and lambs of all ages inventory	farms--	1 727	1.1
	acres--	490 150	1.3	number--	117 714	1.1	
180 to 219 acres	farms--	2 296	1.4	Sheep and lambs sold	farms--	1 670	1.2
	acres--	454 317	1.4	number--	104 278	1.1	
220 to 259 acres	farms--	1 586	1.5				
	acres--	378 158	1.5				
260 to 499 acres	farms--	4 540	1.3				
	acres--	1 598 835	1.3				
500 to 999 acres	farms--	2 517	.9				
	acres--	1 695 001	.9				
1,000 to 1,999 acres	farms--	987	—				
	acres--	1 302 696	—	Chickens 3 months old or older inventory	farms--	2 069	1.0
2,000 acres or more	farms--	285	—	number--	6 191 513	.3	
	acres--	923 545	—	Hens and pullets of laying age	farms--	2 022	1.1
			—	number--	4 883 025	.3	
				Broilers and other meat-type chickens sold	farms--	640	.4
					number--	201 697 436	(L)
<b>F FARMS BY STANDARD INDUSTRIAL CLASSIFICATION</b>							
Cash grains (011)	farms--	2 330	1.3				
	acres--	928 496	.6	Corn for grain or seed	farms--	6 169	1.0
Field crops, except cash grains (013)	farms--	9 996	1.1	acres--	361 326	.4	
	acres--	1 665 234	.9	bushels--	40 633 506	.3	
Vegetables and melons (016)	farms--	560	1.5				
	acres--	73 611	.9	Corn for silage or green chop	farms--	3 258	.8
Fruits and tree nuts (017)	farms--	790	1.3	acres--	154 263	.3	
	acres--	110 766	.9	tons, green--	2 316 540	.3	
Horticultural specialties (018)	farms--	810	.9				
	acres--	56 375	1.1	Wheat for grain	farms--	3 670	1.1
General farms, primarily crop (019)	farms--	1 087	1.2	acres--	241 042	.5	
	acres--	251 837	.8	bushels--	12 598 036	.4	
Livestock, except dairy, poultry, and animal specialties (021)	farms--	21 756	1.0				
	acres--	4 160 793	1.0	Barley for grain	farms--	1 415	1.0
Dairy farms (024)	farms--	1 469	.5	acres--	75 341	.5	
	acres--	650 011	.2	bushels--	5 438 662	.5	
Poultry and eggs (025)	farms--	1 185	.4				
	acres--	156 676	.3	Tobacco	farms--	8 444	1.2
Animal specialties (027)	farms--	1 913	1.1	acres--	55 419	.9	
	acres--	148 626	1.2	pounds--	113 240 049	.8	
General farms, primarily livestock and animal specialties (029)	farms--	326	1.9				
	acres--	94 586	1.6	Soybeans for beans	farms--	3 709	1.1
				acres--	507 878	.5	
				bushels--	15 742 573	.5	
<b>L LIVESTOCK</b>							
Cattle and calves inventory	farms--	27 638	1.0	Irish potatoes	farms--	545	1.5
	number--	1 653 191	.8	acres--	8 499	.4	
Beef cows	farms--	22 519	1.0	cwt--	1 391 343	.4	
	number--	674 068	1.0				
Milk cows	farms--	2 369	.7	Sweetpotatoes	farms--	139	2.7
	number--	140 033	.2	acres--	763	2.2	
				bushels--	178 355	1.4	
					93 720	.3	
				pounds--	258 551 252	.3	
				Hay—alfalfa, other tame, small grain, wild, grass silage, green chop, etc. (see text)	farms--	25 282	1.0
				acres--	1 101 530	.9	
				tons, dry--	2 180 604	.8	
				Alfalfa hay	farms--	8 789	1.0
				acres--	229 609	1.0	
				tons, dry--	552 865	.9	
				Vegetables harvested for sale (see text)	farms--	1 215	1.1
				acres--	27 996	.5	
				Land in orchards	farms--	1 387	1.1
				acres--	32 963	.7	

<sup>1</sup>Data are based on a sample of farms.

<sup>2</sup>Farms with total production expenses equal to market value of agricultural products sold are included as farms with gains of less than \$1,000.

**Table D. Reliability Estimates of State Totals for Farms With Sales of \$10,000 or More:  
1992**

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Relative standard error of estimate (percent)	Item	Total	Relative standard error of estimate (percent)			
<b>F FARMS AND LAND IN FARMS</b>								
Farms ----- number--	16 828	1.1	Total farm production expenses ----- farms --	16 878	.8			
Land in farms ----- acres --	5 972 418	.7	\$1,000--	1 563 948	.3			
Average size of farm ----- acres --	355	1.3	Average per farm ----- dollars --	92 662	.9			
<b>M MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD</b>								
Total sales (see text) ----- farms --	16 828	1.1	Livestock and poultry purchased ----- farms --	7 393	1.7			
\$1,000--	1 964 325	.3	\$1,000--	213 013	1.0			
Average per farm ----- dollars --	116 730	1.2	Feed for livestock and poultry ----- farms --	11 297	1.2			
Farms by value of sales:			Commercial mixed formula feeds ----- farms --	449 051	.2			
\$10,000 to \$19,999 ----- farms --	5 946	1.5	\$1,000--	5 332	2.1			
\$1,000--	83 084	1.5	Average per farm ----- dollars --	375 858	.2			
\$20,000 to \$24,999 ----- farms --	1 456	1.8	Seeds, bulbs, plants, and trees ----- farms --	10 708	1.3			
\$1,000--	32 362	1.8	\$1,000--	39 404	.7			
\$25,000 to \$39,999 ----- farms --	2 382	1.7	Commercial fertilizer ----- farms --	13 688	1.1			
\$1,000--	74 363	1.7	Agricultural chemicals ----- farms --	96 751	.8			
\$40,000 to \$49,999 ----- farms --	884	1.8	\$1,000--	12 446	1.2			
\$1,000--	39 220	1.9	Petroleum products ----- farms --	60 815	.8			
\$50,000 to \$99,999 ----- farms --	1 946	1.4	\$1,000--	16 618	.9			
\$1,000--	138 842	1.4	Electricity ----- farms --	68 147	.6			
\$100,000 to \$249,999 ----- farms --	2 197	—	\$1,000--	12 406	1.2			
\$1,000--	358 069	—	Hired farm labor ----- farms --	9 758	1.4			
\$250,000 to \$499,999 ----- farms --	1 242	—	\$1,000--	183 125	.4			
\$1,000--	436 236	—	Contract labor ----- farms --	2 264	3.6			
\$500,000 or more ----- farms --	775	—	\$1,000--	15 878	2.1			
\$1,000--	802 149	—	Repair and maintenance ----- farms --	15 452	1.0			
Sales by commodity or commodity group:			\$1,000--	84 759	.8			
Crops, including nursery and greenhouse crops ----- farms --	10 493	1.2	Customwork, machine hire, and rental of machinery and equipment ----- farms --	6 005	2.0			
\$1,000--	665 143	.4	\$1,000--	14 091	1.9			
Grains ----- farms --	4 786	1.1	Interest expense ----- farms --	8 228	1.6			
\$1,000--	190 178	.4	\$1,000--	71 809	1.0			
Corn for grain ----- farms --	2 681	1.0	Secured by real estate ----- farms --	5 429	2.1			
\$1,000--	64 764	.3	\$1,000--	49 603	1.2			
Wheat ----- farms --	2 851	1.1	Not secured by real estate ----- farms --	4 783	2.3			
\$1,000--	36 586	.4	\$1,000--	22 207	1.2			
Soybeans ----- farms --	2 805	1.1						
\$1,000--	78 581	.4						
Sorghum for grain ----- farms --	176	1.5	<b>NET CASH RETURN FROM AGRICULTURAL SALES FOR THE FARM UNIT (SEE TEXT)<sup>1</sup></b>					
\$1,000--	1 164	1.0	All farms ----- number--	16 878	.8			
Barley ----- farms --	786	1.1	\$1,000--	378 479	.9			
\$1,000--	8 350	.5	Average per farm ----- dollars --	22 424	1.2			
Oats ----- farms --	122	2.1						
\$1,000--	298	3.4						
Other grains ----- farms --	177	.8	Farms with net gains <sup>2</sup> ----- number--	13 082	1.1			
\$1,000--	435	.5	\$1,000--	425 034	.7			
Cotton and cottonseed ----- farms --	133	1.1	Average net gain ----- dollars --	32 490	1.3			
\$1,000--	5 483	.2						
Tobacco ----- farms --	4 358	1.5	Farms with net losses ----- number--	3 796	2.9			
\$1,000--	164 130	.8	\$1,000--	46 556	2.6			
Hay, silage, and field seeds ----- farms --	2 853	1.1	Average net loss ----- dollars --	12 264	3.9			
\$1,000--	21 548	1.0						
Vegetables, sweet corn, and melons ----- farms --	786	1.1	<b>GOVERNMENT PAYMENTS AND OTHER FARM-RELATED INCOME</b>					
\$1,000--	54 159	.3	Government payments ----- farms --	3 737	1.1			
Fruits, nuts, and berries ----- farms --	502	1.4	\$1,000--	15 714	.5			
\$1,000--	42 304	.3	Other farm-related income <sup>1</sup> ----- farms --	4 916	2.4			
Nursery and greenhouse crops ----- farms --	626	.9	\$1,000--	29 864	3.6			
\$1,000--	98 861	.2	Customwork and other agricultural services ----- farms --	1 685	4.4			
Other crops ----- farms --	1 099	1.1	\$1,000--	13 246	7.1			
\$1,000--	88 480	.3	Gross cash rent or share payments ----- farms --	1 447	4.9			
Livestock, poultry, and their products ----- farms --	12 958	1.1	\$1,000--	5 088	7.2			
\$1,000--	1 299 182	.2	Forest products and Christmas trees ----- farms --	707	6.4			
Poultry and poultry products ----- farms --	1 274	.4	\$1,000--	6 226	4.2			
\$1,000--	572 052	(L)	Other farm-related income sources ----- farms --	2 273	3.4			
Dairy products ----- farms --	1 614	.5	\$1,000--	5 303	3.8			
\$1,000--	287 699	.1						
Cattle and calves ----- farms --	11 765	1.1						
\$1,000--	341 068	.7						
Hogs and pigs ----- farms --	990	1.2						
\$1,000--	65 043	.2						
Sheep, lambs, and wool ----- farms --	786	1.4						
\$1,000--	4 866	1.0						
Other livestock and livestock products (see text) ----- farms --	760	1.4	<b>COMMODITY CREDIT CORPORATION LOANS</b>					
\$1,000--	28 453	.5	Total ----- farms --	528	1.0			
Value of agricultural products sold directly to individuals for human consumption (see text) ----- farms --	766	1.4	\$1,000--	13 883	.4			
\$1,000--	5 656	1.3						

See footnotes at end of table.

## C-10 APPENDIX C

## 1992 CENSUS OF AGRICULTURE

**Table D. Reliability Estimates of State Totals for Farms With Sales of \$10,000 or More:  
1992—Con.**

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Relative standard error of estimate (percent)	Item	Total	Relative standard error of estimate (percent)		
<b>LAND IN FARMS ACCORDING TO USE</b>							
Total cropland	farms--	15 978	1.1	Individual or family (sole proprietorship)	farms--	13 498	1.2
	acres--	3 280 764	.7		acres--	4 180 463	.9
Harvested cropland	farms--	15 142	1.2	Partnership	farms--	2 249	1.1
	acres--	2 059 096	.6		acres--	1 016 589	.6
Cropland:				Corporation:			
Pasture or grazing only	farms--	9 305	1.2	Family held	farms--	882	.7
	acres--	986 389	1.0		acres--	653 640	.3
Total woodland	farms--	11 847	1.2	More than 10 stockholders	farms--	22	3.3
	acres--	1 656 026	.8	10 or less stockholders	farms--	860	.7
Pastureland and rangeland other than cropland and				Other than family held	farms--	99	1.7
woodland pastured	farms--	4 649	1.1		acres--	57 978	.6
	acres--	862 191	.7	More than 10 stockholders	farms--	14	1.9
Land in house lots, ponds, roads, wasteland, etc.	farms--	10 101	1.1	10 or less stockholders	farms--	85	2.0
	acres--	173 437	.9				
Irrigated land	farms--	1 715	1.0	Other—cooperative, estate or trust, institutional, etc.	farms--	100	2.5
	acres--	59 207	.4		acres--	63 748	1.3
Harvested cropland irrigated	farms--	1 698	1.0				
	acres--	58 582	.4				
Pasture and other land irrigated	farms--	44	2.8				
	acres--	625	2.1				
Land under federal acreage reduction programs:				Hired workers by days worked:			
Diverted under annual commodity programs	farms--	1 571	.9	150 days or more	farms--	4 793	9.7
	acres--	22 283	.3		workers--	14 074	4.6
Conservation Reserve or Wetlands Reserve				Less than 150 days	farms--	8 395	18.6
Programs	farms--	985	1.3		workers--	38 914	11.0
	acres--	40 691	1.2				
<b>VALUE OF LAND AND BUILDINGS<sup>1</sup></b>							
Estimated market value of land and buildings	farms--	16 878	.8	<b>INJURIES AND DEATHS</b>			
	\$1,000--	9 099 674		Farm-related injuries:			
Average per farm	dollars--	539 144	1.0	Operator and family members	farms--	189	1.8
Average per acre	dollars--	1 519	1.3		number--	223	1.9
<b>VALUE OF MACHINERY AND EQUIPMENT<sup>1</sup></b>				Hired workers	farms--	340	.8
Estimated market value of all machinery and	farms--	16 870	.8		number--	636	.5
equipment	\$1,000--	1 008 763					
Average per farm	dollars--	59 796	1.2	Farm-related deaths:			
				Operator and family members	farms--	10	8.0
					number--	(D)	(D)
<b>AGRICULTURAL CHEMICALS<sup>1</sup></b>				Hired workers	farms--	2	—
Commercial fertilizer	farms--	13 641	1.1		number--	(D)	(D)
acres on which used	--	1 785 521	.9				
<b>TENURE OF OPERATOR</b>							
All operators	farms--	16 828	1.1	<b>FARMS BY SIZE</b>			
	acres--	5 972 418	.7	1 to 9 acres	farms--	712	1.2
Full owners	farms--	7 682	1.2	10 to 49 acres	farms--	1 703	1.2
	acres--	1 798 833	1.0	50 to 69 acres	farms--	955	1.4
Part owners	farms--	7 662	1.1	70 to 99 acres	farms--	1 259	1.5
	acres--	3 734 502	.6	100 to 139 acres	farms--	1 758	1.5
Tenants	farms--	1 484	1.4	140 to 179 acres	farms--	1 449	1.6
	acres--	439 083	.9	180 to 219 acres	farms--	1 223	1.7
<b>OWNED AND RENTED LAND</b>				220 to 259 acres	farms--	986	1.7
Land owned	farms--	15 373	1.1	260 to 499 acres	farms--	3 322	1.3
	acres--	3 729 474	.8	500 to 999 acres	farms--	2 253	.9
Owned land in farms	farms--	15 344	1.1	1,000 to 1,999 acres	farms--	930	—
	acres--	3 563 362	.8	2,000 acres or more	farms--	278	—
Land rented or leased from others	farms--	9 187	1.1				
	acres--	2 429 609	.6	<b>FARMS BY STANDARD INDUSTRIAL CLASSIFICATION</b>			
Rented or leased land in farms	landlords--	31 683	.8	Cash grains (011)	farms--	1 300	1.4
	farms--	9 146	1.1	Field crops, except cash grains (013)	farms--	4 120	1.4
	acres--	2 409 056	.6	Vegetables and melons (016)	farms--	291	1.8
Land rented or leased to others	farms--	1 989	1.2	Fruits and tree nuts (017)	farms--	271	1.6
	acres--	186 665	1.3	Horticultural specialties (018)	farms--	499	.9
<b>OPERATOR CHARACTERISTICS</b>				General farms, primarily crop (019)	farms--	319	1.5
Operators by place of residence:				Livestock, except dairy, poultry, and animal specialties (021)	farms--	7 178	1.3
On farm operated		12 457	1.1		number--	7 178	1.3
Not on farm operated		3 195	1.2	Dairy farms (024)	farms--	1 399	.5
Not reported		1 176	1.2		number--	1 074	.3
Operators by principal occupation:				Poultry and eggs (025)	farms--	301	1.9
Farming		11 046	1.1	Animal specialties (027)	farms--	76	3.2
Other		5 782	1.3	General farms, primarily livestock and animal specialties (029)	farms--		
Operators by days worked off farm:					number--		
Any		7 493	1.3	Cattle and calves inventory	farms--	11 532	1.1
200 days or more		4 568	1.3		number--	1 270 643	.8
Operators by sex:				Beef cows	farms--	8 857	1.3
Male		15 657	1.1		number--	471 678	1.0
Female		1 171	1.4	Milk cows	farms--	1 812	.6
Average age of operator	years--	54.9	1.6		number--	138 658	.2
				Cattle and calves sold	farms--	11 765	1.1
					number--	706 804	.7
				Hogs and pigs inventory	farms--	\$1,000--	.7
					number--	341 068	.7
				Hogs and pigs sold	farms--	1 128	1.3
					number--	402 999	.3
				Sheep and lambs of all ages inventory	farms--	702 441	1.2
					number--	\$1,000--	.3
				Sheep and lambs sold	farms--	65 043	.2
					number--	753	1.4
					number--	84 505	1.1
					number--	770	1.4
					number--	80 010	1.1
					number--	539	1.5
					number--	4 267	1.8

See footnotes at end of table.

**Table D. Reliability Estimates of State Totals for Farms With Sales of \$10,000 or More:  
1992—Con.**

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Relative standard error of estimate (percent)	Item	Total	Relative standard error of estimate (percent)
<b>POULTRY</b>					
Chickens 3 months old or older inventory	farms--	678	Barley for grain	farms--	1 221
number--		.3	acres--	73 649	.5
Hens and pullets of laying age	farms--	644	bushels--	5 342 999	.5
number--		.3	Tobacco	farms--	4 362
			acres--	492 434	.9
Broilers and other meat-type chickens sold	farms--	618	pounds--	103 139 807	.8
number--			Soybeans for beans	farms--	2 834
			acres--	489 517	.5
			bushels--	15 290 887	.4
<b>CROPS HARVESTED</b>					
Corn for grain or seed	farms--	4 459	Irish potatoes	farms--	257
acres--		.4	acres--	8 294	.4
bushels--		.3	cwt--	1 369 781	.4
Corn for silage or green chop	farms--	39 587 851	Sweetpotatoes	farms--	85
acres--		.3	acres--	691	2.3
tons, green--		.7	bushels--	170 704	1.4
Wheat for grain	farms--	2 256 259	Peanuts for nuts	farms--	851
acres--		.2	acres--	93 039	1.1
bushels--		.4	pounds--	257 536 194	.3
			Hay—alfalfa, other tame, small grain, wild, grass silage, green chop, etc. (see text)	farms--	10 763
			acres--	761 714	.9
			tons, dry--	1 644 946	.8
			Alfalfa hay	farms--	4 597
			acres--	160 440	1.0
			tons, dry--	425 548	.8
			Vegetables harvested for sale (see text)	farms--	787
			acres--	26 926	.4
			Land in orchards	farms--	517
			acres--	28 911	1.4
					.7

<sup>1</sup>Data are based on a sample of farms.

<sup>2</sup>Farms with total production expenses equal to market value of agricultural products sold are included as farms with gains of less than \$1,000.

**Table E. Reliability Estimates of Percent Change in State Totals: 1987 to 1992**

[For meaning of abbreviations and symbols, see introductory text]

Item	All farms		Farms with sales of \$10,000 or more		
	Percent change from 1987 to 1992	Standard error of estimate	Percent change from 1987 to 1992	Standard error of estimate	
Farms-----	-5.8	1.0	7.9	1.3	
Land in farms -----	-4.4	.8	1.5	.8	
Average size of farm -----	1.5	1.4	-5.8	1.4	
Estimated market value of land and buildings <sup>1</sup> :					
Average per farm -----	37.9	2.4	22.7	2.1	
Average per acre -----	36.6	2.3	30.3	2.3	
Estimated market value of all machinery and equipment <sup>1</sup> :					
Average per farm -----	9.4	1.9	-.1	1.6	
Farms by size:					
1 to 9 acres -----	-1.5	1.3	14.7	1.8	
10 to 49 acres -----	-3.6	1.2	28.9	1.9	
50 to 179 acres -----	-7.1	1.2	20.5	1.8	
180 to 499 acres -----	-9.0	1.3	-3.2	1.5	
500 to 999 acres -----	-4.1	1.1	-1.2	1.1	
1,000 to 1,999 acres -----	2.0	.1	2.3	.1	
2,000 acres or more -----	8.0	—	7.8	—	
Total cropland -----	-6.5	1.0	7.7	1.3	
acres-----	-1.2	.8	3.8	.8	
Harvested cropland -----	-8.2	1.0	6.7	1.4	
acres-----	1.7	.7	6.5	.7	
Irrigated land -----	-24.3	.9	-23.6	.9	
acres-----	-21.5	.5	-21.1	.5	
Market value of agricultural products sold -----	\$1,000 --	29.4	.5	31.7	
Average per farm -----	dollars--	37.3	1.6	22.1	
Crops, including nursery and greenhouse crops -----	\$1,000 --	49.7	.8	53.8	
Livestock, poultry, and their products -----	\$1,000 --	21.0	.3	22.7	
Farms by value of sales:					
Less than \$2,500 -----	-22.6	.8	(X)	(X)	
\$2,500 to \$4,999 -----	-10.4	1.2	(X)	(X)	
\$5,000 to \$9,999 -----	1.4	1.4	(X)	(X)	
\$10,000 to \$24,999 -----	7.4	1.8	7.4	1.8	
\$25,000 to \$49,999 -----	7.9	2.0	7.9	2.0	
\$50,000 to \$99,999 -----	-7.4	1.5	-7.4	1.5	
\$100,000 to \$249,999 -----	2.5	(L)	2.5	(L)	
\$250,000 to \$499,999 -----	28.6	—	28.6	—	
\$500,000 or more -----	66.0	—	66.0	—	
Total farm production expenses <sup>1</sup> -----	\$1,000--	27.3	1.5	30.5	
Average per farm -----	dollars--	35.1	1.7	19.4	
Net cash return from agricultural sales for the farm unit (see text) <sup>1</sup> -----	farms--	-5.7	1.1	9.3	
\$1,000--	\$1,000--	55.6	3.1	49.6	
Average per farm -----	dollars--	65.0	3.9	36.9	
Operators by principal occupation:					
Farming -----	-5.1	1.1	1.9	1.2	
Other -----	-6.3	1.1	21.3	1.8	
Operators by days worked off farm:					
Any -----	-9.1	4.6	6.8	5.5	
200 days or more -----	-8.2	4.7	12.5	5.8	
Livestock and poultry:					
Cattle and calves inventory -----	farms--	-2.4	1.1	9.4	
number--	9.4	1.0	12.2	1.0	
Beef cows -----	farms--	1.3	1.2	15.3	1.6
number--	16.0	1.3	22.6	1.4	
Milk cows -----	farms--	-29.7	.6	-19.6	.6
number--	-10.9	.2	-10.0	.2	
Cattle and calves sold -----	farms--	-4.6	1.1	7.4	1.3
number--	.5	.8	3.5	.9	
Hogs and pigs inventory -----	farms--	-43.8	.7	-38.5	.9
number--	19.6	.5	24.1	.5	
Hogs and pigs sold -----	farms--	-47.1	.7	-42.7	.8
number--	11.3	.5	14.7	.5	
Sheep and lambs inventory -----	farms--	-18.8	1.1	-26.5	1.2
number--	-26.9	.9	-31.9	.9	
Chickens 3 months old or older inventory -----	farms--	-35.2	.9	-28.3	1.2
number--	-6.3	.4	-6.0	.4	
Broilers and other meat-type chickens sold -----	farms--	12.9	.6	14.2	.5
number--	41.1	.1	41.1	.1	
Selected crops harvested:					
Corn for grain or seed -----	farms--	-24.4	.9	-6.1	1.1
acres--	5.8	.6	11.0	.6	
bushels--	94.0	1.0	101.9	1.0	
Wheat for grain -----	farms--	-15.4	1.1	-3.6	1.2
acres--	27.9	.9	33.4	.9	
bushels--	56.2	1.0	61.7	1.0	
Tobacco -----	farms--	-13.4	1.2	18.2	1.9
acres--	22.8	1.3	38.5	1.5	
pounds--	40.5	1.4	52.6	1.6	
Soybeans for beans -----	farms--	-19.1	1.0	-7.7	1.2
acres--	10.4	.8	15.5	.8	
bushels--	51.1	1.0	55.9	1.0	
Peanuts for nuts -----	farms--	-18.7	1.1	-13.8	1.1
acres--	1.1	.5	2.0	.5	
pounds--	6.3	.5	7.1	.5	
Hay—alfalfa, other tame, small grain, wild, grass silage, green chop, etc. (see text) -----	farms--	-7.2	1.0	6.6	1.4
acres--	2.4	1.0	8.5	1.1	
tons, dry--	19.0	1.1	23.6	1.1	
Land in orchards -----	farms--	-5.2	1.3	-7.5	1.6
acres--	-3.1	.9	-3.9	.9	

<sup>1</sup>Data are based on a sample of farms.

## 1992 CENSUS OF AGRICULTURE

## APPENDIX C C-13

**Table F. Reliability Estimates for the State and County Totals: 1992**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Farms		Land in farms		Average size of farm		Average market value of land and buildings per farm <sup>1</sup>		Estimated market value of all machinery and equipment <sup>1</sup>	
	Total (number)	Relative standard error of estimate (percent)	Total (acres)	Relative standard error of estimate (percent)	Total (acres)	Relative standard error of estimate (percent)	Value (dollars)	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)
<b>Virginia</b>										
Accomack	42 222	.9	8 297 011	.8	197	1.2	320 488	1.5	1 388 837	.9
Albemarle	279	.9	91 568	.6	328	488 730	4.8	26 158	3.8	
Aleghany	757	1.1	188 567	.9	249	1.5	728 990	4.9	24 978	4.7
Amelia	150	1.1	25 810	2.0	172	2.2	210 646	10.6	4 125	6.9
Amherst	292	.9	70 411	1.1	241	1.4	293 677	6.3	14 922	4.7
Appomattox	418	1.1	90 296	1.4	216	1.8	213 236	7.7	7 528	7.0
Arlington	351	1.2	78 691	1.3	224	1.7	334 798	7.8	11 857	7.5
Augusta	2	—	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Bath	1 514	.7	287 442	.6	190	1.0	361 414	3.2	51 796	4.5
Bedford	119	1.0	47 010	1.2	395	1.6	374 046	5.9	3 477	5.5
Bland	1 227	1.0	200 507	.9	163	1.3	197 561	4.3	29 808	4.1
Botetourt	339	1.1	81 768	1.2	241	1.6	172 646	8.6	9 502	8.3
Brunswick	512	.7	96 833	1.0	189	1.2	259 284	6.2	13 877	5.2
Buchanan	338	1.4	84 677	1.2	251	1.8	220 808	5.3	10 662	4.0
Buckingham	102	2.1	8 627	3.3	85	3.9	(D)	(D)	(D)	(D)
Campbell	335	.9	66 034	1.3	197	1.6	178 835	7.3	8 651	11.5
Caroline	612	1.0	134 474	.9	220	1.4	201 727	7.7	17 614	4.9
Carroll	181	.8	51 604	1.2	285	1.4	408 652	6.1	6 808	7.3
Charles City	884	1.1	113 165	1.0	128	1.5	140 834	4.8	19 520	5.9
Charlotte	66	1.9	28 827	1.3	437	2.2	653 483	5.1	5 255	1.6
Chesterfield	451	1.4	112 944	1.3	250	1.9	214 206	5.2	16 462	7.3
Clarke	145	.9	17 392	2.3	120	2.5	320 368	6.3	5 041	5.0
Craig	319	.9	68 326	.9	214	1.3	737 286	8.0	10 794	9.7
Culpeper	170	.6	45 451	1.5	267	1.6	232 144	6.3	4 736	4.7
Dickenson	471	1.0	115 295	1.0	245	1.4	545 091	7.8	18 340	5.0
Dinwiddie	237	.8	61 669	1.1	260	1.4	289 619	5.8	8 213	9.6
Essex	104	2.1	(D)	(D)	(D)	(D)	113 315	11.9	1 446	10.2
Fairfax	344	1.2	85 954	1.3	250	1.8	263 805	3.9	14 075	8.0
Fauquier	120	1.5	56 280	.9	469	1.8	549 539	4.8	9 774	2.6
Floyd	151	1.4	15 714	3.5	104	3.8	543 511	7.7	5 553	7.4
Giles	925	1.0	235 533	.6	255	1.1	825 429	4.0	34 295	2.9
Goochland	761	.7	116 509	.9	153	1.1	166 058	6.3	21 453	7.8
Fluvanna	263	.7	58 326	1.3	222	1.4	253 006	6.2	7 733	8.0
Franklin	871	1.0	166 477	.8	178	1.3	244 415	5.8	34 143	3.5
Frederick	935	.8	98 142	1.0	183	1.2	539 756	9.7	16 967	8.2
Goochland	536	1.2	37 044	1.8	179	2.1	351 250	7.1	4 565	8.8
Greene	332	1.2	73 097	1.5	220	2.0	159 191	8.7	6 971	8.6
Greenville	156	1.4	51 374	1.1	329	1.7	236 760	5.5	8 685	4.1
Halifax	1 042	1.5	232 852	1.0	223	1.8	180 038	5.7	29 828	4.8
Hanover	547	1.0	96 282	.8	176	1.3	434 463	7.5	20 847	5.1
Henrico	148	1.6	24 201	1.6	164	2.3	454 366	6.4	4 557	7.1
Henry	287	1.6	48 968	2.5	171	3.0	150 520	10.0	4 708	6.5
Highland	298	.9	96 910	1.2	325	1.5	288 171	12.0	6 402	6.4
Isle of Wight	212	.9	86 247	.4	407	1.0	686 576	2.4	19 366	3.0
James City	61	1.1	9 559	1.3	157	1.7	487 307	4.4	1 507	2.8
King and Queen	135	1.0	52 508	1.3	389	1.7	409 932	3.5	7 458	2.6
King George	128	.9	37 777	1.6	295	1.8	515 447	8.7	5 158	4.2
King William	126	1.5	59 326	1.0	471	1.8	642 827	4.6	10 434	7.0
Lancaster	71	2.4	19 657	1.5	277	2.8	328 253	5.4	3 395	3.3
Lee	1 287	1.7	129 296	1.5	100	2.3	95 497	7.3	22 026	5.1
Loudoun	942	1.0	195 476	.8	208	1.3	887 413	3.8	31 925	4.4
Louisa	384	1.2	81 427	1.2	212	1.7	312 279	6.8	14 286	11.4
Middlesex	362	1.2	85 600	1.3	236	1.7	216 846	13.5	10 138	17.9
Mathews	439	.6	100 602	.7	229	1.9	425 074	5.3	15 539	4.3
Mecklenburg	61	.7	6 152	3.2	101	3.3	270 064	4.6	1 557	2.9
Montgomery	645	1.2	167 858	.9	260	1.5	224 562	3.8	24 270	3.9
Middlesex	81	2.1	21 507	1.7	266	2.7	525 377	5.1	3 747	3.4
Montgomery	537	.9	98 914	.8	184	1.2	284 366	5.3	17 839	4.8
Nelson	358	1.3	72 681	1.6	203	2.0	299 224	8.8	8 035	5.7
New Kent	67	1.2	18 367	1.2	274	1.7	501 196	4.3	3 873	1.7
Northampton	162	1.3	52 469	.8	324	1.5	587 417	4.2	12 908	1.8
Northumberland	128	1.2	41 290	1.1	323	1.6	455 510	3.6	9 879	5.0
Nottoway	324	1.3	63 991	1.4	198	1.9	245 019	6.6	9 526	5.9
Orange	419	1.4	107 700	1.1	257	1.8	482 656	5.4	16 717	9.3
Page	521	.9	64 856	1.2	124	1.5	278 485	4.7	16 419	14.5
Patrick	556	1.3	79 449	1.3	143	1.9	156 570	8.2	13 363	6.3
Pittsylvania	1 389	1.0	297 064	.8	214	1.3	215 309	4.0	54 558	3.3
Powhatan	195	1.2	43 180	1.3	221	1.8	482 545	8.5	6 628	6.9
Prince Edward	304	1.1	68 584	1.2	226	1.6	285 706	8.8	8 319	4.8
Prince George	149	.6	48 889	1.2	328	1.4	440 642	6.2	9 137	5.3
Prince William	259	1.1	32 973	2.0	127	2.3	583 398	15.8	8 670	14.6
Pulaski	363	1.1	71 803	1.1	198	1.6	280 996	9.0	9 488	4.8
Rappahannock	312	.9	78 977	1.0	253	1.4	757 386	8.0	9 596	9.5
Richmond	129	1.7	38 940	1.7	302	2.4	371 093	3.9	7 996	4.5
Roanoke	272	1.1	24 924	1.9	92	2.2	231 101	13.2	7 422	4.2
Rockbridge	643	1.2	141 766	1.1	220	1.6	324 330	6.3	19 294	7.9
Rockingham	1 864	.7	236 074	.5	127	.8	356 837	1.7	82 084	1.8
Russell	1 103	1.8	160 973	1.5	146	2.3	124 968	7.0	18 689	5.0
Scott	1 540	1.4	134 191	1.4	87	2.0	100 866	5.6	27 818	7.1
Shenandoah	832	.8	125 394	.9	151	1.2	334 444	4.5	22 583	5.0
Smyth	839	1.1	119 973	.8	143	1.4	146 770	5.0	19 495	5.8
Southampton	329	.7	178 469	.5	542	.9	628 598	8.5	31 302	2.2

See footnotes at end of table.

## C-14 APPENDIX C

## 1992 CENSUS OF AGRICULTURE

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Farms		Land in farms		Average size of farm		Average market value of land and buildings per farm <sup>1</sup>		Estimated market value of all machinery and equipment <sup>1</sup>	
	Total (number)	Relative standard error of estimate (percent)	Total (acres)	Relative standard error of estimate (percent)	Total (acres)	Relative standard error of estimate (percent)	Value (dollars)	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)
Spotsylvania-----	256	1.1	52 904	1.2	207	1.7	659 993	7.6	7 852	9.2
Stafford-----	166	.7	20 107	1.7	121	1.8	489 121	9.4	4 039	12.1
Surry-----	110	1.4	52 770	.5	480	1.5	747 952	2.1	10 380	2.9
Sussex-----	160	1.1	82 736	.8	517	1.4	481 207	2.7	15 495	1.7
Tazewell-----	494	1.2	138 531	.9	280	1.5	267 341	10.0	12 736	10.1
Warren-----	207	1.4	38 967	1.9	188	2.4	434 486	13.5	3 763	18.1
Washington-----	1 986	1.2	190 062	1.0	96	1.5	146 921	4.5	36 767	3.5
Westmoreland-----	159	1.1	56 289	1.0	354	1.5	544 870	4.7	14 150	4.2
Wise-----	122	2.3	13 247	3.1	109	3.9	161 022	13.6	1 948	7.6
Wythe-----	725	.9	131 366	.9	181	1.3	201 649	6.2	22 453	6.3
York-----	55	1.8	2 358	6.0	43	6.2	304 564	7.3	1 917	6.1
Chesapeake (IC)-----	189	1.2	54 290	.5	287	1.3	697 718	9.9	10 033	4.0
Suffolk (IC)-----	268	1.0	83 047	.6	310	1.2	523 439	3.4	22 237	4.6
Virginia Beach (IC)-----	156	1.0	43 332	.6	278	1.2	694 918	5.6	7 571	3.4
Geographic area		Average market value of all machinery and equipment per farm <sup>1</sup>		Market value of agricultural products sold		Average market value of agricultural products sold per farm		Farm production expenses <sup>1</sup>		
		Value (dollars)	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Value (dollars)	Relative standard error of estimate (percent)	Total farm production expenses		
								Farms		Value
Geographic area		Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Value (dollars)	Relative standard error of estimate (percent)	Farm production expenses <sup>1</sup>		
								Total farm production expenses		
Virginia-----	<b>33 090</b>	<b>1.4</b>	<b>2 055 958</b>	<b>.3</b>	<b>48 694</b>	<b>1.0</b>	<b>42 230</b>	<b>1.1</b>	<b>1 699 051</b>	<b>.3</b>
Accomack-----	93 758	4.0	71 806	.1	257 368	.9	279	1.1	56 811	.9
Albemarle-----	32 996	4.9	21 841	.5	28 852	1.2	757	1.5	21 057	2.5
Alleghany-----	27 497	7.2	2 042	1.3	13 611	1.7	150	2.0	2 047	3.3
Amelia-----	51 101	4.9	38 813	.2	132 921	.9	292	1.1	33 800	1.5
Amherst-----	18 634	7.3	5 334	1.3	12 760	1.7	417	1.3	5 001	10.1
Appomattox-----	33 684	7.6	6 889	.8	19 626	1.4	352	1.3	6 523	5.5
Arlington-----	(D)	(D)	(D)	(D)	(D)	(D)	2	—	(D)	(D)
Augusta-----	34 393	4.6	111 144	.2	73 411	.8	1 513	.9	95 254	.9
Bath-----	29 218	5.8	1 775	1.7	14 917	2.0	119	1.9	1 918	2.9
Bedford-----	24 293	4.3	20 740	.6	16 903	1.1	1 227	1.1	16 841	2.8
Bland-----	27 864	8.4	6 608	1.3	19 492	1.7	341	1.4	5 871	6.8
Botetourt-----	27 424	5.4	12 549	.6	24 510	.9	512	1.0	11 506	4.8
Brunswick-----	31 637	4.3	15 823	.6	46 814	1.5	337	1.7	11 026	2.0
Buchanan-----	(D)	(D)	625	3.5	6 130	4.1	102	3.3	353	12.2
Buckingham-----	25 825	11.6	15 531	.3	46 361	1.0	335	1.4	13 327	1.5
Campbell-----	28 734	5.1	14 938	.7	24 409	1.2	613	1.3	10 825	2.8
Caroline-----	37 611	7.4	8 288	.6	45 791	1.0	181	1.3	6 838	5.6
Carroll-----	22 283	6.0	19 743	.7	22 333	1.3	884	1.1	14 869	3.8
Charles City-----	79 620	4.5	5 388	.5	81 633	1.9	66	4.2	4 234	.6
Charlotte-----	36 994	7.5	14 561	1.1	32 285	1.8	450	1.5	10 289	5.0
Chesterfield-----	34 766	5.4	7 014	.5	48 373	1.1	145	2.1	5 455	1.4
Clarke-----	33 838	9.8	17 761	.5	55 678	1.0	319	1.1	17 112	2.7
Craig-----	27 860	5.1	2 581	1.5	15 182	1.6	170	1.9	2 336	4.4
Culpeper-----	38 938	5.1	24 059	.5	51 080	1.1	471	1.2	21 969	3.2
Cumberland-----	34 507	9.7	27 236	.2	114 920	.8	238	1.5	21 747	.7
Dickenson-----	13 908	10.7	(D)	(D)	(D)	(D)	104	3.4	454	11.7
Dinwiddie-----	40 798	8.1	16 825	.7	48 911	1.4	345	1.3	12 341	1.8
Essex-----	80 778	3.3	9 651	.5	80 429	1.6	121	2.1	8 499	1.9
Fairfax-----	37 520	7.7	3 333	1.1	22 071	1.8	151	2.1	3 803	2.5
Fauquier-----	37 440	3.2	37 776	.4	40 838	1.0	924	1.1	40 249	2.1
Floyd-----	28 190	7.9	21 357	.5	28 064	.8	761	1.0	17 063	2.0
Fluvanna-----	29 402	8.1	4 550	1.0	17 300	1.2	263	1.1	4 296	4.0
Franklin-----	36 517	3.7	40 121	.3	42 910	1.0	935	1.2	31 432	1.8
Frederick-----	32 442	8.4	23 655	.3	44 132	.8	537	.9	19 605	1.8
Giles-----	20 996	8.7	4 053	1.5	12 207	2.0	332	1.5	3 160	6.1
Gloucester-----	50 624	3.4	4 702	.8	42 357	1.2	110	2.0	3 569	2.8
Goochland-----	38 131	9.4	4 751	.8	20 480	1.4	232	1.9	4 496	3.5
Grayson-----	19 969	5.3	16 893	.7	19 395	1.2	870	1.1	12 467	3.4
Greene-----	22 051	8.9	4 418	1.1	21 343	1.6	207	1.5	4 617	10.8
Greenville-----	55 672	4.5	15 671	.6	100 457	1.5	156	1.9	13 098	4.5
Halifax-----	28 626	5.0	33 393	.8	32 047	1.7	1 042	1.5	22 040	2.5
Hanover-----	37 973	5.3	20 926	.4	38 255	1.1	549	1.2	18 206	2.9
Henrico-----	30 583	7.5	6 859	.7	46 347	1.8	149	2.5	4 980	2.8
Henry-----	16 461	6.7	3 991	2.2	13 908	2.7	286	1.8	3 730	11.1
Highland-----	21 483	6.5	9 809	.9	32 918	1.3	298	1.1	7 477	2.8
Isle of Wight-----	91 349	3.2	38 453	.2	181 380	.9	212	.9	31 441	1.4
James City-----	24 700	4.5	2 428	.9	39 810	1.4	61	3.5	(D)	(D)
King and Queen-----	55 241	3.3	9 039	.7	66 955	1.3	135	2.1	7 768	1.4
King George-----	40 294	4.8	5 251	.6	41 023	1.1	128	2.2	3 635	3.0
King William-----	82 811	7.3	11 860	.4	94 129	1.6	126	2.2	9 766	.9
Lancaster-----	47 823	5.7	2 604	1.6	36 679	2.9	71	4.6	2 304	2.7
Lee-----	17 208	5.4	15 365	1.4	11 939	2.3	1 287	1.7	9 174	4.3
Loudoun-----	34 108	4.6	26 746	.5	28 393	1.1	942	1.1	30 592	2.4
Louisa-----	37 203	11.5	9 887	.7	25 748	1.4	384	1.4	8 944	4.3

See footnotes at end of table.

## 1992 CENSUS OF AGRICULTURE

## APPENDIX C C-15

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Average market value of all machinery and equipment per farm <sup>1</sup>		Market value of agricultural products sold		Average market value of agricultural products sold per farm		Farm production expenses <sup>1</sup>					
	Value (dollars)	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Value (dollars)	Relative standard error of estimate (percent)	Total farm production expenses					
							Farms		Value			
							Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)		
Lunenburg -----	28 007	18.0	13 314	.6	36 779	1.3	362	1.2	10 877	4.0		
Madison -----	35 317	4.4	18 722	.4	42 647	.7	440	1.0	16 357	1.5		
Mathews -----	25 528	4.2	2 417	1.1	39 630	1.3	61	3.1	2 060	1.4		
Mecklenburg -----	37 628	4.2	31 879	.5	49 425	1.3	645	1.4	21 255	3.2		
Middlesex -----	46 255	5.5	3 791	1.2	46 807	2.4	81	4.3	3 059	2.1		
Montgomery -----	33 158	4.9	15 168	.5	28 246	1.0	538	1.0	13 161	3.3		
Nelson -----	22 443	5.9	5 799	1.3	16 197	1.8	358	1.5	5 291	4.4		
New Kent -----	57 813	3.9	3 405	1.5	50 823	1.9	67	3.5	2 763	1.3		
Northampton -----	80 171	2.4	26 764	.2	165 208	1.3	161	1.6	21 148	1.0		
Northumberland -----	77 787	5.5	7 962	.9	62 206	1.5	127	2.2	6 962	2.5		
Nottoway -----	29 400	6.1	24 666	.3	76 131	1.3	324	1.7	20 868	2.6		
Orange -----	39 803	9.4	20 284	.5	48 411	1.5	420	1.4	19 320	2.7		
Page -----	31 881	14.6	70 387	.1	135 099	.9	522	1.1	58 359	1.0		
Patrick -----	24 385	6.6	11 195	1.0	20 135	1.7	557	1.6	8 727	4.6		
Pittsylvania -----	39 279	3.5	56 020	.5	40 331	1.1	1 389	1.1	39 291	2.4		
Powhatan -----	33 992	7.1	7 926	.6	40 646	1.4	195	1.4	6 885	2.3		
Prince Edward -----	28 103	5.5	11 816	.5	38 868	1.2	304	1.5	11 047	5.0		
Prince George -----	61 321	5.7	7 672	.6	51 489	.8	149	2.0	6 623	2.6		
Prince William -----	33 475	14.7	5 626	1.0	21 723	1.4	259	1.4	5 868	7.2		
Pulaski -----	26 139	5.0	11 649	.6	32 091	1.3	363	1.3	9 249	2.2		
Rappahannock -----	30 756	9.6	6 172	1.0	19 781	1.4	312	1.1	6 107	6.1		
Richmond -----	61 505	5.0	8 391	1.0	65 050	2.0	130	2.2	6 656	2.3		
Roanoke -----	27 286	4.3	12 873	.4	47 327	1.1	272	1.2	10 075	1.0		
Rockbridge -----	30 673	8.1	14 373	.7	22 353	1.3	643	1.2	13 722	6.3		
Rockingham -----	44 345	2.0	370 998	.1	199 033	.7	1 863	.8	309 299	.3		
Russell -----	17 052	5.3	19 531	1.4	17 707	2.3	1 103	1.9	11 817	3.9		
Scott -----	18 064	7.2	16 249	1.2	10 551	1.9	1 540	1.5	9 696	6.1		
Shenandoah -----	27 111	5.1	55 955	.2	67 254	.8	833	1.0	49 621	1.1		
Smyth -----	23 236	6.0	19 720	.5	23 504	1.3	839	1.4	14 534	4.0		
Southampton -----	95 143	2.5	56 128	.2	170 601	.8	329	1.2	43 007	1.0		
Spotsylvania -----	30 672	9.3	5 920	.9	23 126	1.4	256	1.5	5 482	4.9		
Stafford -----	24 331	12.2	1 868	1.4	11 255	1.6	166	1.9	1 904	5.9		
Surry -----	94 362	3.4	18 865	.2	171 496	1.4	110	1.9	17 128	.5		
Sussex -----	96 845	2.5	27 007	.2	168 791	1.1	160	1.8	22 159	.7		
Tazewell -----	31 292	10.7	13 551	.9	27 431	1.5	494	1.4	10 572	5.4		
Warren -----	18 178	18.2	4 070	1.5	19 661	2.0	207	1.6	4 690	4.3		
Washington -----	18 845	3.8	47 509	.5	23 922	1.3	1 985	1.3	32 830	1.5		
Westmoreland -----	91 290	4.8	15 171	.5	95 418	1.2	159	1.7	12 540	1.0		
Wise -----	15 970	8.2	934	1.9	7 652	3.0	122	3.1	858	8.7		
Wythe -----	30 970	6.4	25 647	.5	35 376	1.0	725	1.3	20 854	4.2		
York -----	34 849	7.7	2 871	.9	52 201	2.0	55	4.6	2 388	.9		
Chesapeake (IC) -----	53 085	4.3	23 628	.2	125 014	1.2	189	1.4	20 208	1.4		
Suffolk (IC) -----	82 667	4.8	37 053	.3	138 258	1.0	269	1.0	31 318	1.8		
Virginia Beach (IC) -----	48 222	3.9	17 002	.3	108 984	1.1	157	1.9	14 106	1.4		
Farm production expenses <sup>1</sup> —Con.												
Livestock and poultry purchased												
Farms				Feed for livestock and poultry				Seeds, bulbs, plants, and trees				
Geographic area	Farms		Value		Farms		Value		Farms		Value	
	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)
Virginia-----	14 208	1.7	230 888	.9	24 667	1.3	461 703	.3	18 804	1.4	41 102	.7
Accomack -----	79	7.7	3 392	.3	93	9.3	14 842	.2	200	5.5	2 016	2.9
Alebermarle -----	228	12.0	1 337	11.8	502	5.5	2 525	4.3	176	14.9	245	5.8
Alleghany -----	54	9.5	737	6.0	89	7.1	281	4.1	37	14.8	10	13.9
Amelia -----	119	13.5	7 134	1.0	174	9.5	13 552	.7	161	10.1	296	14.9
Amherst -----	150	15.2	576	14.0	267	9.4	667	12.0	108	19.9	71	29.0
Appomattox -----	129	14.8	710	25.9	205	10.6	1 224	4.2	162	13.0	92	10.9
Arlington -----	1	—	(D)	(D)	1	—	(D)	(D)	1	—	(D)	(D)
Augusta -----	755	5.7	15 089	4.9	1 099	3.8	40 801	.6	554	6.6	1 176	2.5
Bath -----	41	10.4	498	6.1	82	5.7	172	5.7	29	12.4	15	9.2
Bedford -----	379	9.8	1 688	10.8	804	4.5	3 239	3.4	364	9.3	331	5.5
Bland -----	210	7.5	1 841	19.3	255	6.9	894	4.1	128	10.9	61	9.8
Botetourt -----	188	11.5	1 507	15.0	313	6.7	1 818	10.0	143	14.0	137	15.0
Brunswick -----	56	22.6	326	2.6	115	16.6	1 361	1.6	231	6.6	266	9.8
Buchanan -----	30	18.3	50	25.1	44	11.8	32	19.8	49	11.4	7	22.1
Buckingham -----	132	13.7	1 805	5.9	213	8.0	6 574	.8	101	17.6	53	18.5
Campbell -----	170	14.5	1 027	10.1	377	5.7	1 601	5.1	304	8.9	264	8.9
Caroline -----	28	47.7	128	5.3	101	16.3	526	31.0	77	14.6	345	3.6
Carroll -----	356	8.5	4 832	9.6	549	5.7	2 164	5.3	128	17.4	221	5.6
Charles City -----	15	7.9	36	11.3	29	6.8	58	2.7	33	4.1	268	.8
Charlotte -----	116	15.0	648	14.1	205	9.5	1 195	2.4	235	8.1	168	18.5
Chesterfield -----	28	15.4	342	5.0	59	8.7	1 276	.8	62	8.9	217	2.6
Clarke -----	122	15.5	1 387	8.8	229	7.5	2 286	5.2	111	16.2	257	6.6
Craig -----	64	10.2	439	13.4	129	5.0	305	7.9	56	10.6	24	14.2
Culpeper -----	205	12.9	2 893	4.2	314	8.2	2 949	7.8	116	15.2	906	4.6

See footnotes at end of table.

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## 1992 CENSUS OF AGRICULTURE

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Farm production expenses <sup>1</sup> —Con.											
	Livestock and poultry purchased				Feed for livestock and poultry				Seeds, bulbs, plants, and trees			
	Farms		Value		Farms		Value		Farms		Value	
	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)
Cumberland -----	88	12.8	2 763	1.1	199	7.1	10 645	.2	90	15.5	68	8.7
Dickenson -----	37	13.4	32	16.4	69	6.6	73	18.7	37	12.0	5	18.9
Dinwiddie -----	74	18.0	444	2.9	168	9.1	1 697	2.2	206	8.8	399	2.7
Essex -----	11	32.1	16	57.1	34	11.3	112	7.9	100	4.4	640	1.2
Fairfax -----	39	11.3	180	9.5	78	7.0	523	4.5	36	11.6	185	1.6
Fauquier -----	319	9.9	9 167	6.2	638	4.6	5 238	3.9	330	8.5	774	3.1
Floyd -----	270	11.9	4 897	4.5	427	7.7	2 417	6.0	188	12.7	291	5.4
Fluvanna -----	69	21.6	836	7.5	149	13.0	1 044	4.4	40	26.5	28	8.1
Franklin -----	304	10.0	1 850	15.9	549	5.6	8 463	1.8	440	6.8	556	5.3
Frederick -----	201	13.1	1 194	13.1	329	7.2	1 649	4.4	238	9.2	285	4.0
Giles -----	132	15.8	694	20.5	245	7.8	378	19.9	77	17.8	38	22.4
Gloucester -----	18	17.8	27	49.0	29	12.9	87	14.9	61	7.7	253	2.8
Goochland -----	73	23.8	245	21.8	165	9.1	707	4.5	79	22.0	155	6.9
Grayson -----	365	8.1	3 271	9.1	569	4.9	2 335	5.9	257	10.3	78	6.2
Greene -----	75	19.7	841	30.3	136	11.9	823	5.7	93	18.0	53	12.4
Greenville -----	47	23.8	645	.7	75	21.2	1 970	.6	114	8.1	826	5.7
Halifax -----	224	12.6	658	22.0	414	8.0	1 085	9.3	679	4.9	363	9.0
Hanover -----	121	18.3	740	7.6	264	9.7	2 341	1.6	291	8.6	1 096	5.1
Henrico -----	23	19.7	72	13.8	67	8.1	354	9.5	68	7.6	470	6.4
Henry -----	85	26.5	774	28.4	147	17.1	450	29.0	105	17.3	56	12.8
Highland -----	174	10.1	1 998	8.1	213	8.3	2 540	1.8	46	25.1	27	9.3
Isle of Wight -----	55	16.4	1 626	.7	90	13.3	6 826	.4	179	5.1	1 483	4.2
James City -----	16	6.9	57	13.5	27	5.5	141	2.4	31	4.4	240	1.1
King and Queen -----	39	12.7	206	4.7	52	9.3	348	6.6	104	5.2	537	2.1
King George -----	21	17.5	38	19.4	47	11.7	89	16.5	68	7.3	221	5.1
King William -----	30	12.0	410	4.0	55	10.2	461	2.1	93	5.5	481	1.7
Lancaster -----	11	8.3	76	4.7	11	8.2	55	8.3	60	4.8	142	2.9
Lee -----	247	13.9	1 718	13.3	544	7.4	732	8.9	705	6.1	94	12.9
Loudoun -----	315	9.3	2 923	7.3	682	4.2	2 628	3.5	328	9.0	1 089	6.5
Louisa -----	124	16.1	1 324	7.0	223	9.6	1 582	4.7	188	10.4	176	11.6
Lunenburg -----	78	22.9	802	7.9	188	12.5	1 663	3.1	169	14.2	116	7.8
Madison -----	158	11.3	3 186	3.3	300	7.2	2 697	1.7	173	9.2	286	3.2
Mathews -----	9	8.7	24	6.5	17	5.9	36	1.9	35	4.2	68	3.2
Mecklenburg -----	113	19.0	673	13.1	302	9.9	2 134	3.0	379	6.8	646	10.9
Middlesex -----	14	7.1	88	1.1	27	6.6	158	3.1	50	4.8	200	1.5
Montgomery -----	218	11.2	2 219	10.8	358	6.7	3 058	3.0	160	12.1	211	6.2
Nelson -----	113	17.5	396	27.2	194	10.7	284	15.1	115	16.7	182	6.8
New Kent -----	9	11.8	25	23.9	18	7.5	17	10.5	42	3.6	191	1.4
Northampton -----	12	25.1	54	7.7	15	20.1	32	21.5	150	2.1	2 059	1.6
Northumberland -----	14	22.5	120	19.9	14	22.5	105	13.4	97	4.7	498	3.0
Nottoway -----	184	10.5	4 119	3.9	237	7.6	7 012	7.3	134	13.8	125	9.5
Orange -----	195	8.8	4 059	3.8	333	5.3	3 290	2.4	158	7.0	440	3.9
Page -----	307	7.9	8 954	2.3	406	5.1	35 068	.3	204	10.4	163	7.9
Patrick -----	116	19.3	623	10.6	245	11.8	1 107	8.2	181	12.6	277	15.7
Pittsylvania -----	364	9.3	3 339	13.2	647	5.5	2 964	4.8	852	4.3	740	4.8
Powhatan -----	69	17.9	832	4.0	108	12.4	2 221	1.8	50	19.8	98	1.3
Prince Edward -----	93	18.4	1 469	12.6	146	11.3	3 214	4.3	157	12.0	141	6.1
Prince George -----	27	15.8	98	10.7	57	10.2	174	4.1	98	5.4	501	3.0
Prince William -----	91	16.1	334	21.9	173	9.4	992	6.5	58	22.1	120	15.5
Pulaski -----	142	8.8	2 346	4.4	231	8.2	1 513	2.9	46	19.6	163	2.3
Rappahannock -----	90	20.0	734	10.4	214	9.1	723	9.7	78	18.6	104	27.3
Richmond -----	17	17.3	148	22.2	36	12.6	137	5.1	102	5.0	381	3.0
Roanoke -----	93	17.9	1 865	4.3	146	12.2	4 353	.9	57	25.3	45	7.6
Rockbridge -----	236	11.5	2 874	19.2	443	5.9	2 453	4.7	228	11.6	236	10.2
Rockingham -----	1 099	3.3	66 000	1.1	1 500	2.3	158 868	.2	819	4.4	1 490	2.7
Russell -----	353	9.1	2 986	10.4	622	5.8	1 392	5.8	719	5.2	116	8.5
Scott -----	372	10.5	1 680	18.0	693	6.1	1 095	15.1	968	4.3	121	10.0
Shenandoah -----	395	6.7	8 089	4.6	612	4.4	24 085	.4	371	7.5	357	6.6
Smyth -----	355	8.7	3 302	8.7	501	6.4	2 607	6.5	436	7.7	182	7.5
Southampton -----	80	9.2	1 712	.3	176	9.9	7 038	1.1	274	4.9	2 299	3.7
Spotsylvania -----	64	17.4	261	8.8	122	11.8	875	4.9	93	17.2	162	9.6
Stafford -----	41	16.9	258	4.6	93	8.8	198	20.8	58	12.9	38	13.1
Surry -----	32	8.7	551	4.1	48	6.8	3 604	.1	90	4.0	724	2.2
Sussex -----	32	16.1	554	10.8	61	10.4	(D)	(D)	115	4.8	951	2.5
Tazewell -----	263	7.8	3 656	11.6	363	5.3	1 443	3.5	126	14.9	80	9.8
Warren -----	71	20.9	1 327	13.3	154	11.5	975	6.4	58	33.3	(D)	(D)
Washington -----	500	8.3	5 551	5.3	1 013	4.6	8 326	1.6	1 200	4.1	409	4.7
Westmoreland -----	20	18.6	246	11.2	32	13.2	149	2.2	137	3.6	815	1.9
Wise -----	36	12.4	61	18.3	65	9.4	144	7.8	34	16.1	11	16.3
Wythe -----	341	9.3	4 190	14.8	517	5.8	5 270	3.8	245	11.5	282	8.0
York -----	4	15.7	(D)	(D)	12	9.5	70	3.3	37	5.3	254	.4
Chesapeake (IC) -----	10	—	302	—	67	15.9	819	1.8	91	14.6	3 766	.5
Suffolk (IC) -----	83	21.2	1 257	4.0	154	11.7	4 526	8.1	183	7.9	1 660	5.3
Virginia Beach (IC) -----	33	14.7	1 284	.3	64	8.5	1 714	3.4	80	4.6	797	2.4

See footnotes at end of table.

## 1992 CENSUS OF AGRICULTURE

## APPENDIX C C-17

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Farm production expenses <sup>1</sup> —Con.											
	Commercial fertilizer				Agricultural chemicals				Petroleum products			
	Farms		Value		Farms		Value		Farms		Value	
	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)
Virginia	29 001	1.3	108 844	.8	24 321	1.3	64 381	.8	40 388	1.1	79 225	.7
Accomack	169	8.4	3 832	2.9	209	4.0	4 078	1.2	270	1.1	1 988	4.7
Albemarle	407	7.6	1 148	8.7	370	8.3	622	5.9	733	2.1	1 176	6.5
Alleghany	90	7.2	130	20.4	55	10.9	24	21.0	142	3.2	90	7.6
Amelia	214	7.2	1 169	10.6	184	9.2	546	14.5	285	2.2	1 284	5.3
Amherst	300	7.9	508	13.3	140	17.9	133	17.4	404	3.0	319	12.3
Appomattox	282	4.7	820	11.2	188	11.0	158	12.6	343	2.5	456	7.2
Arlington	2	—	(D)	(D)	2	—	(D)	(D)	2	—	(D)	(D)
Augusta	875	4.6	3 262	3.2	809	5.4	1 272	2.3	1 410	1.7	2 672	2.1
Bath	59	7.6	105	6.8	48	9.9	28	14.7	115	2.4	119	5.9
Bedford	880	3.9	2 103	5.5	465	7.7	364	10.8	1 194	1.5	1 101	5.1
Bland	221	7.6	387	10.6	227	8.9	89	13.5	339	1.4	343	10.0
Botetourt	324	6.7	821	8.7	271	8.4	519	3.1	505	1.4	500	5.1
Brunswick	282	4.6	1 259	5.9	245	6.6	607	4.1	326	2.6	1 062	3.2
Buchanan	79	6.2	39	21.8	57	10.4	8	20.9	99	3.3	59	17.0
Buckingham	229	7.1	456	15.3	164	11.6	77	17.0	323	2.6	449	6.2
Campbell	462	4.9	1 158	6.5	343	7.9	236	7.1	577	2.7	845	4.6
Caroline	145	8.8	1 440	5.7	136	10.1	486	6.2	146	8.7	369	5.7
Carroll	573	5.3	1 118	7.1	252	11.3	512	10.8	844	1.6	780	6.8
Charles City	47	4.2	860	.4	51	4.5	570	1.4	62	4.2	254	.9
Charlotte	361	4.2	1 247	8.7	302	6.1	289	8.8	438	1.9	1 078	9.1
Chesterfield	77	6.0	224	4.3	88	5.6	168	8.6	128	3.2	284	2.2
Clarke	138	15.0	552	11.8	159	11.4	805	4.0	310	2.7	796	3.9
Craig	103	6.6	233	12.7	73	8.2	39	12.2	162	2.3	181	5.9
Culpeper	226	11.5	1 907	11.0	171	12.9	692	8.8	457	1.7	1 332	2.2
Cumberland	130	11.2	547	12.7	128	13.1	139	5.0	238	1.5	557	6.6
Dickenson	68	7.6	43	15.9	57	9.7	7	17.2	93	4.7	40	12.1
Dinwiddie	269	4.2	1 151	3.3	253	5.3	956	2.7	334	2.1	989	6.6
Essex	99	4.2	1 585	3.9	98	4.9	882	4.7	119	2.3	556	2.9
Fairfax	55	9.3	83	8.5	89	5.7	64	10.3	136	3.2	163	4.1
Fauquier	413	7.6	2 086	4.0	535	5.9	821	3.7	802	2.7	1 618	3.1
Floyd	527	5.8	1 095	6.3	326	10.0	366	13.5	753	1.2	808	5.7
Fluvanna	152	12.1	271	9.5	105	14.1	47	20.8	262	1.1	262	8.3
Franklin	768	3.3	2 943	4.1	466	6.3	840	7.1	897	1.8	1 582	3.8
Frederick	304	7.8	759	9.7	314	8.7	1 613	2.7	521	1.9	891	3.8
Giles	215	9.1	256	12.3	185	11.0	152	14.0	311	3.3	248	10.8
Gloucester	88	4.3	705	4.7	87	4.4	320	5.3	103	2.7	276	7.3
Goochland	146	12.5	409	7.7	65	24.5	170	7.3	232	1.9	344	7.0
Grayson	577	4.9	740	6.5	432	6.8	191	12.4	809	2.5	761	6.2
Greene	162	8.2	358	16.3	126	12.8	69	14.6	207	1.5	205	8.5
Greensville	123	8.8	1 314	9.4	132	4.6	1 892	18.0	156	1.9	688	2.1
Halifax	866	3.0	2 711	5.4	835	3.5	762	4.7	989	1.9	2 911	4.3
Hanover	428	5.1	2 839	5.3	376	6.3	1 096	6.2	518	2.2	1 100	4.2
Henrico	97	5.8	486	5.6	84	7.8	262	5.1	144	2.6	286	2.6
Henry	189	11.6	443	9.5	123	17.5	80	35.2	273	3.3	248	10.7
Highland	137	12.6	218	12.5	93	16.6	48	13.7	289	2.5	368	7.1
Isle of Wight	186	3.5	3 007	3.1	197	3.3	3 032	2.9	212	.9	1 739	3.6
James City	38	4.2	197	1.2	39	4.1	(D)	(D)	52	3.7	(D)	(D)
King and Queen	97	5.2	1 464	1.2	107	4.9	929	3.5	135	2.1	528	3.7
King George	90	5.7	946	2.8	79	7.1	271	4.0	127	2.2	242	5.3
King William	96	6.3	2 017	1.2	88	7.4	1 037	1.3	120	2.7	602	1.6
Lancaster	62	4.7	473	3.6	55	4.7	324	2.3	68	4.7	197	2.6
Lee	1 155	2.6	949	7.2	852	4.9	229	20.0	1 230	2.2	688	7.6
Loudoun	400	7.7	1 602	3.9	486	5.8	1 156	5.5	902	1.7	1 606	3.3
Louisa	223	9.7	774	7.4	211	10.8	186	11.5	378	1.9	552	7.5
Lunenburg	289	6.5	750	5.9	250	7.1	578	7.2	356	2.0	884	9.1
Madison	314	6.7	1 328	3.0	297	6.9	460	9.0	430	1.7	685	3.8
Mathews	45	3.6	161	5.1	44	3.6	96	2.8	54	3.2	133	2.1
Mecklenburg	531	4.2	2 127	5.1	452	5.6	921	5.2	604	2.8	2 115	4.3
Middlesex	59	4.7	600	1.6	68	4.6	249	2.7	78	4.4	215	2.3
Montgomery	381	6.1	850	7.3	285	8.8	294	7.1	516	2.1	634	7.0
Nelson	212	8.8	469	9.6	165	13.6	329	2.1	350	2.5	347	8.3
New Kent	52	3.7	686	.8	51	3.6	269	1.0	64	3.4	161	1.6
Northampton	142	2.9	2 714	2.9	145	2.1	1 890	.8	157	1.8	1 114	1.4
Northumberland	116	3.5	1 405	4.3	106	4.4	986	2.1	121	3.3	423	2.9
Nottoway	190	10.0	670	8.9	177	11.0	260	5.1	309	3.4	695	4.7
Orange	254	8.3	923	10.5	252	7.9	473	3.8	403	2.5	699	5.3
Page	191	12.7	377	19.5	231	10.4	314	25.6	499	2.3	1 411	2.1
Patrick	478	3.9	896	4.9	269	10.0	389	6.2	534	2.8	681	7.2
Pittsylvania	1 186	2.3	4 173	2.9	952	3.1	1 529	5.0	1 352	1.4	4 253	3.0
Powhatan	110	13.1	376	5.7	76	18.3	98	2.6	178	5.1	258	9.1
Prince Edward	206	8.7	736	8.3	214	8.0	310	7.6	282	3.8	548	6.2
Prince George	127	3.5	1 246	4.2	95	5.6	1 131	3.8	146	2.2	456	2.7
Prince William	88	17.5	422	16.4	114	15.6	108	12.4	193	8.2	289	14.3
Pulaski	189	12.7	523	16.4	146	15.6	166	13.0	336	2.2	364	9.9
Rappahannock	164	10.2	350	12.7	180	9.1	288	5.7	297	2.3	519	13.6
Richmond	114	4.3	1 075	5.2	104	4.3	534	3.6	127	2.3	364	5.0
Roanoke	159	12.7	137	10.9	118	16.3	73	18.9	259	3.3	264	8.6
Rockbridge	395	6.8	790	4.7	382	7.7	285	4.9	626	1.7	705	5.0
Rockingham	862	4.7	2 877	4.0	1 062	3.7	2 334	3.2	1 783	1.2	6 052	1.0

See footnotes at end of table.

## C-18 APPENDIX C

## 1992 CENSUS OF AGRICULTURE

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Farm production expenses <sup>1</sup> —Con.											
	Commercial fertilizer				Agricultural chemicals				Petroleum products			
	Farms		Value		Farms		Value		Farms		Value	
	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)
Russell -----	978	2.9	1 118	9.0	773	4.8	251	9.6	1 075	2.1	643	5.3
Scott -----	1 341	2.4	1 168	5.6	1 066	4.0	211	9.5	1 481	1.8	583	6.9
Shenandoah -----	464	6.0	1 106	7.7	457	5.9	983	4.0	801	1.8	1 320	3.2
Smyth -----	713	3.7	949	7.8	470	7.2	340	5.2	832	1.5	749	9.9
Southampton -----	249	6.2	4 221	2.6	279	3.6	5 515	1.6	313	1.8	2 824	2.0
Spotsylvania -----	148	9.8	557	20.8	174	8.8	298	15.5	217	4.6	312	6.7
Stafford -----	99	6.9	214	5.2	108	6.9	61	5.9	157	3.0	188	8.8
Surry -----	98	2.9	1 531	1.3	98	3.2	1 825	1.3	110	1.9	1 034	.9
Sussex -----	123	4.9	1 718	2.6	129	4.6	2 415	1.3	156	2.9	1 107	.9
Tazewell -----	254	9.2	422	8.0	199	11.6	102	16.6	471	2.4	572	8.0
Warren -----	106	22.1	165	16.3	84	25.8	125	29.0	207	1.6	188	10.4
Washington -----	1 729	2.0	2 186	4.4	1 244	3.9	448	5.9	1 902	1.7	1 426	3.0
Westmoreland -----	137	3.6	1 687	1.9	135	3.6	1 004	1.7	150	2.7	649	1.8
Wise -----	81	7.2	102	35.1	52	11.0	22	8.5	108	4.3	59	8.4
Wythe -----	453	7.2	1 209	5.2	296	10.4	467	15.7	701	2.1	1 060	5.3
York -----	43	5.0	(D)	(D)	39	5.4	107	2.9	53	4.7	180	1.8
Chesapeake (IC) -----	125	9.4	1 764	2.7	145	8.3	1 140	1.8	183	1.5	1 019	1.5
Suffolk (IC) -----	167	8.9	3 488	5.9	202	8.0	3 202	5.2	247	5.3	1 520	3.9
Virginia Beach (IC) -----	114	3.5	1 258	2.9	104	4.8	1 154	2.7	146	2.6	779	1.7
Geographic area	Farm production expenses <sup>1</sup> —Con.											
	Electricity				Hired farm labor				Contract labor			
	Farms		Value		Farms		Value		Farms		Value	
	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)
<b>Virginia-----</b>	<b>22 564</b>	<b>1.3</b>	<b>27 032</b>	<b>.5</b>	<b>16 359</b>	<b>1.5</b>	<b>188 671</b>	<b>.4</b>	<b>3 927</b>	<b>3.2</b>	<b>17 113</b>	<b>2.0</b>
Accomack -----	217	5.7	574	1.0	143	8.7	9 628	.2	48	12.8	2 346	.5
Albermarle -----	347	8.7	429	6.5	258	11.2	2 875	2.6	164	15.2	774	9.2
Alleghany -----	62	10.0	19	8.8	31	14.9	130	2.4	16	23.7	14	30.6
Amelia -----	174	8.2	813	1.7	133	10.4	1 750	.6	16	33.8	46	5.9
Amherst -----	167	13.2	69	16.5	96	14.9	485	12.2	21	42.3	16	40.5
Appomattox -----	196	11.6	139	7.1	137	12.7	598	6.8	15	35.4	12	27.3
Arlington -----	2	—	(D)	(D)	1	—	(D)	(D)	1	—	(D)	(D)
Augusta -----	950	4.5	1 736	1.7	509	6.9	6 272	1.9	196	16.1	493	25.9
Bath -----	61	8.1	29	7.0	46	8.7	188	3.5	12	30.2	6	37.3
Bedford -----	494	7.5	304	4.8	344	9.6	1 483	4.7	77	24.8	77	14.4
Bland -----	119	15.9	67	8.1	98	16.9	487	17.5	7	2.0	22	1.2
Botetourt -----	280	8.3	196	7.2	157	12.6	1 668	2.5	43	30.8	87	63.9
Brunswick -----	210	6.7	310	1.8	166	11.5	2 057	3.8	23	41.5	105	7.4
Buchanan -----	36	14.2	11	20.3	21	20.8	11	26.1	7	35.6	6	53.7
Buckingham -----	149	12.7	138	4.1	109	15.0	383	12.6	43	31.9	38	39.7
Campbell -----	302	8.1	191	5.4	238	10.7	1 488	3.1	49	21.9	58	25.9
Caroline -----	115	14.5	86	5.8	32	22.9	619	.1	13	56.4	48	2.9
Carroll -----	305	8.9	142	8.7	245	12.1	1 253	6.8	62	27.4	134	17.7
Charles City -----	43	4.0	74	2.2	22	4.6	678	.7	9	9.0	17	3.9
Charlotte -----	237	8.7	238	7.1	257	7.7	1 684	6.7	58	22.1	101	14.5
Chesterfield -----	72	7.2	92	3.7	38	11.0	1 268	.9	13	13.9	(D)	(D)
Clarke -----	196	8.3	354	7.3	128	12.4	3 795	2.1	39	31.0	739	6.7
Craig -----	95	6.9	38	10.4	79	8.3	134	10.1	23	18.4	26	25.2
Culpeper -----	207	11.1	513	6.0	130	18.3	3 729	6.3	47	29.4	86	30.7
Cumberland -----	157	10.3	359	1.9	111	15.2	1 994	.8	11	—	116	—
Dickenson -----	42	12.5	10	26.3	26	18.0	12	50.3	23	19.6	16	32.3
Dinwiddie -----	165	10.7	240	4.6	128	13.0	1 766	3.8	24	33.2	90	6.1
Essex -----	72	6.7	65	2.7	47	10.7	818	.6	7	41.0	3	17.9
Fairfax -----	96	5.7	62	6.4	57	8.7	909	1.0	25	16.1	75	12.0
Fauquier -----	547	6.0	681	4.5	381	7.7	6 582	2.8	107	18.3	262	6.9
Floyd -----	379	8.4	178	6.6	187	14.3	1 726	1.5	68	28.8	325	8.9
Fluvanna -----	75	17.2	62	15.9	106	14.4	406	7.2	23	34.3	52	4.8
Franklin -----	506	5.9	549	3.8	327	8.3	4 205	.8	81	23.6	164	24.3
Frederick -----	374	6.0	234	4.9	171	12.6	5 160	1.7	57	22.0	1 809	3.3
Giles -----	131	14.8	33	19.9	92	18.6	152	10.1	36	30.5	42	16.2
Gloucester -----	61	7.4	38	5.4	33	6.7	498	.4	15	13.6	7	3.6
Goochland -----	96	18.2	83	7.7	84	19.4	513	3.5	13	62.9	26	25.7
Grayson -----	361	8.5	182	5.8	357	8.4	712	6.1	41	29.5	62	13.4
Greene -----	93	17.7	63	6.7	85	19.0	604	22.4	25	42.7	69	76.1
Greensville -----	91	13.0	187	2.4	71	20.2	1 275	.4	19	50.5	182	5.6
Halifax -----	609	5.9	462	4.4	687	5.3	4 412	6.5	77	25.2	275	23.8
Hanover -----	282	9.2	298	4.9	162	13.2	2 496	2.0	38	32.6	97	11.0
Henrico -----	80	6.5	94	6.0	48	10.4	1 015	.4	10	27.9	9	16.3
Henry -----	96	22.7	35	15.0	42	38.9	348	30.4	30	57.4	17	63.7
Highland -----	183	9.2	107	8.4	74	17.1	320	8.2	20	27.4	21	13.5
Isle of Wight -----	177	5.9	574	2.1	123	10.8	3 197	1.1	17	.5	236	(L)
James City -----	31	4.5	62	1.8	21	4.8	428	1.7	3	11.0	(D)	(D)
King and Queen -----	68	8.2	70	7.9	38	11.1	609	1.3	17	22.6	55	9.6
King George -----	74	7.7	61	6.2	38	12.9	524	2.2	11	32.1	21	50.3

See footnotes at end of table.

## 1992 CENSUS OF AGRICULTURE

TIPS [UPF] BATCH\_861 [ACEN,C\_ARLEDGE] 3/25/94 9:01 AM MACHINE: EPCV20 DATA:VOL1\_TIPS\_APX\_54.TIPS:1 \* 3/23/94 14:35:00 TAPE: NOreel FRAME: 13 TIPS:TIPS92-14360637.DAT;1 3/23/94 14:36:13 UFT:TIPS93-14360637.DAT;1 3/23/94 14:36:13 META:VOL1\_TIPS96\_APX\_54.DAT;2 3/23/94 14:37:20

## APPENDIX C C-19

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Farm production expenses <sup>1</sup> —Con.											
	Electricity				Hired farm labor				Contract labor			
	Farms		Value		Farms		Value		Farms		Value	
	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)
King William -----	71	7.4	186	2.3	41	10.9	964	.2	11	24.7	84	2.5
Lancaster -----	34	5.5	(D)	(D)	21	5.1	150	1.6	5	8.8	(D)	(D)
Lee -----	586	6.5	126	9.2	544	7.7	739	11.0	114	21.2	109	29.3
Loudoun -----	620	5.1	576	3.6	436	7.3	5 354	2.7	103	19.3	224	19.3
Louisa -----	219	9.7	149	12.5	139	14.4	724	4.7	44	26.6	75	51.8
Lunenburg -----	179	10.3	198	7.2	190	10.6	1 717	7.1	38	40.2	283	28.0
Madison -----	248	8.7	266	4.8	129	13.5	1 870	6.6	32	27.3	147	12.9
Mathews -----	34	3.9	65	2.3	24	4.4	657	.3	8	5.6	19	1.2
Mecklenburg -----	390	6.3	431	4.8	311	8.3	4 727	4.5	35	33.0	93	13.9
Middlesex -----	52	5.2	56	4.4	31	5.2	339	2.0	9	11.1	30	9.0
Montgomery -----	290	8.5	194	5.3	202	11.0	1 553	3.8	63	23.3	82	9.9
Nelson -----	138	15.2	84	8.3	129	14.0	1 076	4.2	53	27.6	103	16.6
New Kent -----	36	3.7	29	1.6	25	4.8	222	1.1	3	13.2	10	5.2
Northampton -----	123	4.9	239	1.6	98	6.3	4 782	1.3	36	10.5	978	1.3
Northumberland -----	70	6.5	53	3.8	56	10.3	464	5.5	5	—	30	—
Nottoway -----	216	7.1	489	3.1	149	12.2	1 741	2.3	25	38.4	84	10.9
Orange -----	228	10.0	260	5.2	194	9.4	3 011	1.1	74	24.5	67	23.4
Page -----	318	7.9	780	1.3	158	13.2	1 190	6.9	69	27.5	86	18.9
Patrick -----	230	10.3	141	7.9	246	11.7	1 226	4.6	37	28.5	214	29.4
Pittsylvania -----	805	4.4	858	3.4	738	4.8	6 732	3.3	151	15.6	633	7.7
Powhatan -----	128	10.0	158	4.8	86	13.8	803	5.5	8	68.8	2	41.4
Prince Edward -----	147	12.0	247	19.9	135	11.4	1 221	12.1	16	27.7	76	17.3
Prince George -----	100	6.2	103	6.2	56	10.4	587	1.4	5	—	54	—
Prince William -----	195	7.4	157	9.9	79	17.3	710	3.2	14	43.7	25	48.9
Pulaski -----	193	12.6	115	5.7	126	17.1	1 338	8.0	49	30.5	37	20.6
Rappahannock -----	178	11.5	92	7.8	119	15.2	759	8.3	34	30.7	150	6.9
Richmond -----	73	7.2	76	2.9	47	10.7	1 164	4.0	14	23.8	82	2.8
Roanoke -----	134	11.7	176	1.9	86	20.0	1 551	1.2	21	40.7	56	5.1
Rockbridge -----	318	9.6	184	5.6	173	13.2	1 280	1.4	36	24.4	82	19.2
Rockingham -----	1 391	2.7	4 109	.4	792	4.8	16 127	.3	109	12.7	947	1.3
Russell -----	463	7.9	150	10.3	439	8.2	857	7.6	84	20.6	206	19.4
Scott -----	510	7.5	108	8.5	576	7.1	770	10.2	83	23.9	263	77.0
Shenandoah -----	497	5.5	680	2.2	306	9.2	3 772	2.3	73	21.3	140	7.5
Smyth -----	448	7.7	188	6.5	325	9.8	1 035	5.4	117	20.1	198	33.5
Southampton -----	252	7.0	713	3.3	194	7.0	4 302	2.8	42	17.8	189	6.8
Spotsylvania -----	171	9.6	146	7.6	88	16.4	608	5.9	3	—	(D)	(D)
Stafford -----	100	7.4	49	14.4	41	15.6	81	22.6	8	41.7	6	45.9
Surry -----	75	3.8	366	.8	51	5.6	2 181	.3	8	25.9	33	16.0
Sussex -----	123	5.7	461	.6	67	6.4	3 509	.3	9	18.1	(D)	(D)
Tazewell -----	256	8.9	122	10.1	169	11.9	1 035	9.5	62	21.6	33	17.4
Warren -----	105	18.6	48	15.1	63	33.1	432	14.0	5	—	(D)	(D)
Washington -----	968	5.0	566	4.2	872	5.4	3 535	2.6	182	16.1	444	15.3
Westmoreland -----	99	6.5	153	3.5	78	7.1	3 162	1.7	23	14.1	677	1.6
Wise -----	38	14.3	15	8.5	43	12.5	(D)	(D)	18	23.2	33	32.9
Wythe -----	373	8.2	324	5.7	287	10.0	2 290	4.1	123	20.3	170	11.5
York -----	24	5.7	56	1.7	21	6.0	846	.1	5	13.1	(D)	(D)
Chesapeake (IC) -----	135	8.8	327	3.6	74	16.4	5 319	.2	20	40.1	64	22.7
Suffolk (IC) -----	207	8.2	392	4.5	120	11.3	4 981	.3	23	1.2	86	.2
Virginia Beach (IC) -----	94	6.7	195	3.9	71	8.5	1 755	2.0	18	16.9	80	3.4
Geographic area	Farm production expenses <sup>1</sup> —Con.											
	Repair and maintenance				Customwork, machine hire, and rental of machinery and equipment				Interest expense			
	Farms		Value		Farms		Value		Farms		Value	
	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)
Virginia-----	34 281	1.2	102 175	.9	10 686	1.9	16 587	1.8	13 746	1.6	85 120	1.1
Accomack -----	254	4.2	3 059	3.3	124	11.1	444	5.6	154	8.9	1 835	3.4
Alebermarle -----	649	3.6	2 072	5.3	165	16.4	185	15.3	217	12.0	1 676	10.7
Alleghany -----	108	5.6	138	7.6	34	14.9	18	19.8	31	15.1	113	10.4
Amelia -----	267	3.6	1 189	7.0	60	16.1	113	2.9	97	14.5	946	6.0
Amherst -----	333	6.0	601	19.1	58	26.5	49	37.4	108	21.0	295	37.2
Appomattox -----	283	5.6	596	10.8	72	22.6	42	15.6	139	13.4	613	20.1
Arlington -----	2	—	(D)	(D)	—	—	—	—	1	—	(D)	(D)
Augusta -----	1 191	3.3	4 326	3.0	436	8.9	916	6.6	641	6.3	5 268	4.7
Bath -----	100	4.0	204	7.4	20	14.7	14	18.9	41	9.8	160	19.2
Bedford -----	964	3.5	1 485	5.7	326	10.5	217	9.5	319	10.6	1 155	11.7
Bland -----	311	4.0	421	9.1	76	22.2	46	38.2	61	25.0	247	25.9
Botetourt -----	420	4.5	899	12.7	116	16.9	180	18.9	173	12.3	1 070	11.3
Brunswick -----	285	4.4	798	4.2	92	17.8	106	35.2	104	16.9	441	2.8
Buchanan -----	70	7.3	36	10.0	9	29.8	3	29.8	3	69.5	6	69.5
Buckingham -----	287	4.8	539	10.4	63	25.1	52	26.6	87	17.2	450	16.5
Campbell -----	510	3.8	944	5.9	156	13.8	117	23.6	188	13.1	616	12.9
Caroline -----	101	15.1	497	7.5	62	22.8	197	15.5	59	24.3	508	12.1
Carroll -----	646	4.4	783	6.5	137	17.1	123	16.8	174	14.3	610	12.5
Charles City -----	52	4.3	326	1.0	15	7.1	17	5.6	23	4.6	260	.6

See footnotes at end of table.

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## 1992 CENSUS OF AGRICULTURE

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Farm production expenses <sup>1</sup> —Con.											
	Repair and maintenance				Customwork, machine hire, and rental of machinery and equipment				Interest expense			
	Farms		Value		Farms		Value		Farms		Value	
	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)
Charlotte -----	377	4.1	987	11.9	152	13.0	159	28.9	199	10.3	602	8.2
Chesterfield -----	112	4.9	369	3.8	16	14.7	(D)	(D)	41	12.9	197	8.9
Clarke -----	276	5.9	1 315	9.8	78	19.6	228	12.2	106	17.6	1 082	7.3
Craig -----	138	3.7	221	6.7	30	18.6	21	18.0	42	13.0	166	18.9
Culpeper -----	380	6.1	1 675	7.3	108	17.2	226	12.6	183	12.9	1 432	9.1
Cumberland -----	209	6.0	517	2.8	90	17.4	82	30.4	99	16.6	703	8.8
Dickenson -----	79	6.4	62	20.9	11	28.6	2	31.8	12	28.6	52	41.1
Dinwiddie -----	284	5.3	998	4.3	118	11.4	267	36.3	120	12.4	646	5.4
Essex -----	108	3.5	599	2.5	21	17.3	108	7.8	71	6.6	886	2.8
Fairfax -----	112	5.0	321	8.1	26	16.9	18	7.6	30	14.3	223	11.8
Fauquier -----	811	2.9	3 109	3.2	240	11.9	362	11.2	263	10.9	2 016	10.6
Floyd -----	611	4.5	1 112	6.7	153	16.9	187	16.5	210	13.8	820	13.6
Fluvanna -----	204	7.6	289	8.7	49	26.7	27	19.0	50	27.9	221	31.9
Franklin -----	801	3.1	2 692	8.2	282	9.6	426	8.0	213	8.6	1 652	5.5
Frederick -----	460	3.9	1 627	7.3	170	14.6	276	7.4	123	15.8	689	5.7
Giles -----	263	6.0	316	12.0	60	24.5	29	36.0	79	19.5	199	21.2
Gloucester -----	95	3.9	291	6.0	12	15.7	46	14.3	36	12.4	215	17.4
Goochland -----	202	5.9	521	9.4	35	30.3	17	18.7	79	22.6	334	18.3
Grayson -----	661	3.8	986	8.6	237	10.7	208	15.0	259	10.0	678	9.0
Greene -----	198	3.3	364	12.3	76	21.2	88	24.2	62	22.8	311	34.7
Greenville -----	146	4.3	1 126	3.2	88	10.5	248	10.3	70	18.7	467	2.9
Halifax -----	871	3.6	2 123	6.6	308	10.0	404	17.9	368	9.3	1 571	10.3
Hanover -----	452	4.8	1 622	7.5	109	15.2	255	16.6	184	13.1	859	6.3
Henrico -----	127	3.6	285	4.3	17	25.8	45	21.4	38	11.1	225	14.9
Henry -----	248	5.5	336	10.8	81	28.1	30	37.6	89	26.4	205	26.0
Highland -----	232	6.9	421	8.6	68	19.0	54	13.3	127	14.7	287	8.6
Isle of Wight -----	195	4.7	1 906	2.4	135	9.0	547	21.8	114	10.3	1 993	5.2
James City -----	48	3.9	136	2.0	10	9.0	10	4.9	18	5.0	107	5.8
King and Queen -----	109	4.7	786	5.4	54	10.1	162	10.2	62	8.2	436	5.1
King George -----	119	3.2	338	7.7	29	14.2	36	14.1	47	11.3	213	10.7
King William -----	108	4.8	727	3.5	22	18.3	49	8.7	53	7.4	746	.4
Lancaster -----	59	4.9	200	4.0	21	7.4	50	9.4	41	5.3	185	3.9
Lee -----	966	3.9	833	10.7	260	12.4	103	14.6	372	10.3	800	17.1
Loudoun -----	851	2.6	2 925	6.7	238	11.1	395	12.6	244	10.4	1 971	6.0
Louisa -----	339	4.6	799	9.1	88	20.9	123	36.6	134	14.9	452	18.1
Lunenburg -----	321	4.8	1 054	19.2	98	23.3	195	13.8	159	14.5	975	9.8
Madison -----	373	3.8	1 133	5.2	152	13.5	256	10.2	140	13.1	713	6.5
Mathews -----	47	3.5	166	2.5	12	7.1	72	.9	17	5.3	86	2.7
Mecklenburg -----	470	5.5	1 648	5.0	196	11.8	299	13.0	279	9.7	1 448	7.4
Middlesex -----	65	4.6	326	3.2	22	6.4	40	3.2	37	5.1	198	6.5
Montgomery -----	453	4.0	979	6.5	126	16.6	171	23.8	123	15.3	749	10.2
Nelson -----	249	8.3	461	7.1	87	20.0	141	7.8	84	18.5	284	17.4
New Kent -----	55	3.5	271	3.7	20	5.4	80	1.3	22	4.3	141	2.9
Northampton -----	152	2.2	1 450	2.0	88	7.2	536	4.0	96	6.2	1 034	2.1
Northumberland -----	118	3.4	729	4.3	38	12.2	123	11.3	49	10.7	359	7.7
Nottoway -----	297	4.2	1 033	6.0	78	19.2	133	24.2	102	13.7	1 085	7.9
Orange -----	326	6.1	1 402	6.2	133	15.2	187	17.3	187	12.4	853	8.5
Page -----	437	4.6	1 274	10.7	145	15.9	188	19.3	260	9.7	2 328	2.5
Patrick -----	453	4.9	759	7.8	105	19.3	90	18.0	175	13.5	538	10.5
Pittsylvania -----	1 232	2.2	3 148	5.2	364	9.2	496	11.2	515	7.1	2 355	7.4
Powhatan -----	172	5.7	471	11.7	35	28.7	13	17.7	68	15.4	482	7.7
Prince Edward -----	252	5.3	774	10.8	96	18.6	80	17.3	134	10.4	568	12.4
Prince George -----	136	3.3	650	4.4	31	15.5	40	11.3	57	9.0	383	8.8
Prince William -----	194	5.4	571	18.7	47	30.2	98	16.5	69	20.7	313	16.0
Pulaski -----	248	8.2	567	7.8	95	18.5	68	27.5	106	19.6	503	9.4
Rappahannock -----	242	8.1	601	9.4	83	24.0	109	34.2	94	21.6	448	29.4
Richmond -----	116	4.0	446	4.1	50	10.1	113	7.4	62	8.4	326	4.8
Roanoke -----	199	8.9	429	5.0	44	27.1	21	20.2	37	32.7	257	11.6
Rockbridge -----	577	2.7	1 000	4.4	111	17.7	144	11.7	247	10.8	1 227	13.7
Rockingham -----	1 673	1.7	8 034	1.4	695	4.8	1 274	4.3	857	4.1	9 641	1.5
Russell -----	1 772	4.5	1 010	7.9	181	13.9	137	14.2	238	12.4	722	6.3
Scott -----	1 023	4.0	836	6.6	298	11.8	209	19.5	266	12.2	748	17.8
Shenandoah -----	664	3.8	1 701	3.7	261	10.5	331	10.4	269	9.5	2 043	6.1
Smyth -----	646	4.9	1 069	11.3	218	14.4	148	19.6	315	10.4	996	15.1
Southampton -----	269	5.3	2 715	3.1	170	11.0	817	4.5	206	7.4	2 637	4.3
Spotsylvania -----	218	5.7	572	5.7	32	30.2	(D)	(D)	55	25.5	374	39.9
Stafford -----	147	3.5	198	6.7	26	22.5	18	24.3	47	15.4	163	18.5
Surry -----	102	2.8	1 299	1.0	52	7.2	111	4.0	68	4.7	1 332	1.3
Sussex -----	145	4.1	1 428	1.1	61	10.4	118	4.5	70	7.0	1 451	1.1
Tazewell -----	342	7.0	672	10.5	61	21.9	35	18.6	130	15.9	502	12.5
Warren -----	180	8.0	294	9.7	58	32.2	40	28.9	63	33.7	346	40.8
Washington -----	1 394	3.3	2 210	4.1	352	12.0	207	11.6	523	8.2	2 003	6.7
Westmoreland -----	138	3.5	816	1.5	51	10.1	148	4.9	68	8.4	613	4.7
Wise -----	96	5.7	(D)	(D)	7	35.4	(D)	(D)	29	17.9	65	25.1
Wythe -----	621	3.7	1 522	11.4	188	13.6	263	11.8	278	10.9	952	10.5
York -----	46	4.8	189	2.0	1	39.7	(D)	(D)	7	7.4	(D)	(D)
Chesapeake (IC) -----	179	4.2	1 238	1.4	64	18.8	290	16.5	61	14.9	764	11.2
Suffolk (IC) -----	245	4.4	1 968	2.0	95	12.5	354	8.7	158	9.3	1 330	5.6
Virginia Beach (IC) -----	113	4.7	1 120	3.4	46	12.7	208	1.7	61	8.9	734	3.6

See footnotes at end of table.

## 1992 CENSUS OF AGRICULTURE

## APPENDIX C C-21

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Farm production expenses <sup>1</sup> —Con.											
	Cash rent				Property taxes paid				All other farm production expenses			
	Farms		Value		Farms		Value		Farms		Value	
	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)
Virginia	9 844	1.8	57 154	.9	40 146	1.1	49 989	1.3	36 948	1.1	169 068	.5
Accomack	152	8.0	2 206	5.3	263	2.7	634	11.9	263	2.5	5 936	.5
Albermarle	122	15.2	483	6.2	729	2.0	1 604	6.2	681	3.3	3 906	3.0
Alleghany	31	15.4	97	3.2	150	2.0	112	5.2	123	4.7	133	7.8
Amelia	97	17.0	568	4.7	280	3.2	431	5.6	248	5.4	3 962	2.0
Amherst	79	22.3	137	25.2	409	2.0	323	6.2	371	4.5	752	19.8
Appomattox	89	20.3	144	13.9	334	3.4	370	8.5	296	5.7	547	10.0
Arlington	—	—	—	—	2	—	(D)	(D)	2	—	(D)	(D)
Augusta	356	9.4	1 640	3.3	1 434	1.7	1 837	7.1	1 362	2.1	8 495	1.4
Bath	19	18.4	36	13.3	117	2.4	126	4.6	109	3.3	218	7.9
Bedford	222	12.4	402	10.1	1 129	2.3	786	4.5	1 003	3.2	2 107	4.1
Bland	59	28.3	97	34.4	340	1.4	255	6.3	290	5.2	613	9.4
Botetourt	102	17.5	334	6.2	508	1.1	466	4.9	454	3.3	1 304	5.5
Brunswick	144	14.2	749	3.7	324	2.5	375	7.5	304	3.7	1 203	6.1
Buchanan	10	31.4	4	50.4	96	4.5	38	9.0	83	6.2	44	18.0
Buckingham	50	22.4	86	5.9	330	1.7	272	5.2	284	4.5	1 953	2.0
Campbell	104	18.6	256	13.3	598	2.0	515	6.0	583	2.2	1 510	4.4
Caroline	55	19.0	742	18.6	177	1.3	369	23.1	163	6.4	478	7.3
Carroll	171	13.0	349	10.8	857	1.8	539	4.9	748	3.3	1 307	8.6
Charles City	27	4.2	325	.3	63	4.3	204	1.7	57	4.3	287	.9
Charlotte	132	14.1	444	8.5	434	2.1	445	3.9	371	3.8	1 003	6.0
Chesterfield	46	11.0	187	2.8	133	3.1	198	5.5	126	3.9	532	1.6
Clarke	103	18.6	526	7.1	295	3.3	839	15.2	286	4.9	2 149	2.2
Craig	43	13.6	90	15.3	168	1.9	192	9.3	157	2.7	226	7.4
Culpeper	102	17.7	714	17.0	444	2.9	790	6.2	415	4.3	2 125	6.2
Cumberland	62	22.4	164	23.8	236	1.5	269	5.4	196	6.7	2 825	.7
Dickenson	10	34.3	3	22.6	102	3.6	44	8.8	81	4.9	54	19.5
Dinwiddie	150	10.4	938	1.6	339	1.8	399	10.7	297	3.5	1 361	1.7
Essex	69	6.7	1 249	1.7	110	3.4	284	5.2	106	4.2	696	1.2
Fairfax	23	17.9	57	14.5	134	3.0	296	14.9	140	2.8	644	2.9
Fauquier	186	12.0	1 361	2.4	888	1.7	2 597	4.2	843	2.3	3 576	1.9
Floyd	139	15.6	400	8.1	748	1.4	683	4.8	639	3.7	1 760	4.2
Fluvanna	38	32.3	43	30.0	255	2.9	229	7.9	233	5.4	480	5.7
Franklin	262	10.4	818	6.4	893	1.7	700	4.7	802	2.9	3 992	3.0
Frederick	107	17.7	376	10.1	471	3.8	597	11.8	458	4.3	2 445	3.3
Giles	52	22.8	61	22.2	304	3.9	221	9.4	303	4.0	340	13.0
Gloucester	47	8.3	311	6.6	108	2.0	172	4.6	96	3.1	323	4.3
Goochland	53	28.5	170	6.2	223	4.0	286	9.9	218	4.4	515	5.3
Grayson	158	13.9	368	12.2	845	1.7	646	4.5	719	3.2	1 250	6.5
Greene	14	49.0	39	15.7	207	1.5	301	17.2	190	4.9	428	13.3
Greensville	94	2.1	1 041	2.6	156	1.9	260	4.9	156	1.9	976	7.8
Halifax	342	9.1	1 328	11.1	977	2.5	712	6.1	939	2.7	2 264	4.3
Hanover	129	13.2	852	6.8	539	1.5	661	4.8	477	4.0	1 856	2.7
Henrico	35	15.9	149	17.4	143	2.8	238	4.9	125	4.2	990	.5
Henry	63	33.9	122	49.4	263	5.5	177	18.8	263	3.4	410	17.9
Highland	55	23.5	133	9.2	288	1.6	305	7.2	278	4.3	632	6.5
Isle of Wight	116	10.2	2 171	5.6	200	3.4	523	4.1	203	3.2	2 583	2.3
James City	18	5.0	76	1.0	56	3.8	151	2.0	54	3.7	216	1.4
King and Queen	47	9.5	968	1.4	134	2.1	251	6.1	120	3.8	421	2.9
King George	39	11.0	302	4.9	123	3.0	134	8.1	110	3.8	200	10.0
King William	65	8.5	911	3.7	116	3.2	313	5.0	125	2.2	779	1.0
Lancaster	36	6.3	178	3.3	66	4.7	63	3.9	64	4.6	165	3.3
Lee	197	15.8	364	21.3	1 228	2.2	759	6.0	1 019	3.5	933	6.8
Loudoun	131	14.7	1 033	2.4	893	1.8	3 322	9.1	869	2.3	3 788	3.8
Louisa	95	17.8	210	13.4	371	2.3	352	5.2	328	5.0	1 466	2.7
Lunenburg	91	22.1	356	6.6	353	2.6	418	8.4	301	4.9	887	5.9
Madison	92	13.7	564	3.2	425	2.6	831	7.8	399	4.0	1 934	1.9
Mathews	22	4.8	52	7.9	57	3.2	66	4.8	54	3.2	360	.7
Mecklenburg	188	12.1	1 436	12.1	608	2.9	378	4.0	577	3.5	2 180	4.9
Middlesex	33	5.5	189	3.3	73	4.5	120	4.0	70	4.5	250	2.3
Montgomery	114	12.9	341	12.9	515	2.3	567	14.4	461	4.3	1 260	3.9
Nelson	120	13.5	118	12.0	327	4.2	353	8.6	303	5.7	665	5.8
New Kent	31	4.1	347	1.1	63	3.5	121	2.8	59	3.6	191	2.6
Northampton	98	6.2	1 478	1.2	143	3.3	447	4.2	158	2.1	2 341	.6
Northumberland	81	6.7	1 017	2.4	118	2.8	201	7.9	115	3.6	450	4.6
Nottoway	49	19.8	205	5.0	307	3.4	391	5.9	289	4.8	2 826	1.1
Orange	90	20.6	295	18.0	390	3.4	713	6.4	371	3.5	2 648	15.2
Page	104	17.1	255	8.4	512	1.8	483	6.0	492	2.5	5 487	1.7
Patrick	140	14.8	220	8.4	522	3.2	333	6.2	503	3.8	1 233	14.0
Pittsylvania	330	8.9	2 971	4.8	1 282	2.1	892	5.8	1 231	2.2	4 207	5.4
Powhatan	33	27.3	58	10.8	181	4.0	286	5.2	170	5.7	731	3.1
Prince Edward	95	12.8	256	17.4	292	2.9	279	7.2	259	5.5	1 129	4.2
Prince George	60	9.2	461	5.5	141	2.7	225	4.2	138	3.2	516	6.0
Prince William	60	24.9	325	19.7	221	6.1	555	12.5	231	4.7	848	14.9
Pulaski	72	23.9	177	11.3	338	3.7	331	6.5	332	3.3	1 040	3.6
Rappahannock	58	28.4	121	10.7	302	3.4	554	10.7	280	4.2	554	9.7
Richmond	61	8.8	679	3.5	125	2.6	272	3.5	119	3.0	861	2.9
Roanoke	47	29.4	40	18.6	237	5.7	265	9.7	218	7.7	543	3.5
Rockbridge	176	12.0	530	12.0	642	1.2	628	6.5	592	2.7	1 305	6.0
Rockingham	498	5.6	3 093	2.3	1 804	1.1	3 375	2.9	1 757	1.5	25 078	.5

See footnotes at end of table.

## C-22 APPENDIX C

## 1992 CENSUS OF AGRICULTURE

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Farm production expenses <sup>1</sup> —Con.											
	Cash rent				Property taxes paid				All other farm production expenses			
	Farms		Value		Farms		Value		Farms		Value	
	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)
Russell -----	133	15.7	293	13.2	1 039	2.5	685	5.5	941	3.2	1 251	8.6
Scott -----	111	20.7	54	16.8	1 416	2.3	779	7.7	1 200	3.2	1 073	7.0
Shenandoah -----	176	12.7	531	5.3	826	1.1	1 120	3.7	751	2.5	3 365	2.4
Smyth -----	133	12.9	468	7.0	797	2.2	462	5.4	763	3.0	1 841	3.5
Southampton -----	181	6.1	3 242	1.2	308	2.8	921	9.9	314	2.3	3 863	.7
Spotsylvania -----	86	18.0	200	23.3	242	4.0	314	10.9	226	4.9	759	7.7
Stafford -----	15	29.7	47	18.5	165	1.9	228	6.6	146	3.9	157	6.2
Surry -----	63	5.9	1 252	1.4	103	3.0	268	3.1	106	2.4	1 019	1.6
Sussex -----	89	5.7	1 454	1.5	153	2.1	356	2.1	147	4.0	1 595	2.4
Tazewell -----	140	14.3	381	10.3	468	2.9	370	10.0	406	4.3	1 148	7.2
Warren -----	42	49.3	90	55.8	195	5.2	165	16.7	176	10.6	331	22.1
Washington -----	329	10.7	894	9.4	1 838	1.9	1 239	4.7	1 554	2.9	3 386	2.2
Westmoreland -----	86	7.0	715	1.7	152	2.4	262	3.2	149	2.9	1 443	1.1
Wise -----	21	22.7	23	50.6	113	3.9	(D)	(D)	101	5.0	(D)	(D)
Wythe -----	114	19.1	323	18.5	703	2.1	612	8.6	655	3.0	1 919	5.2
York -----	6	12.1	20	7.5	50	4.8	69	4.3	42	5.1	275	.9
Chesapeake (IC) -----	44	16.1	1 084	5.2	183	1.5	520	15.7	172	5.4	1 791	1.2
Suffolk (IC) -----	132	13.3	2 376	5.7	248	3.4	494	8.9	259	2.6	3 684	2.7
Virginia Beach (IC) -----	53	8.8	1 309	3.6	139	3.0	316	3.8	131	3.7	1 403	3.3
Net cash return from agricultural sales for the farm unit (see text) <sup>1</sup>												
Geographic area	Total cropland											
	Farms				Acres				Farms			
	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	
	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	
Virginia -----	42 230	1.1	334 280	1.1	38 779	1.0	4 311 840	.8	34 255	1.0	2 449 013	.6
Accomack -----	279	1.1	14 032	1.1	239	1.0	72 423	.6	230	1.1	69 420	.7
Albermarle -----	757	1.5	(D)	(D)	677	1.2	87 872	1.1	516	1.3	39 675	1.0
Alleghany -----	150	2.0	(D)	(D)	141	1.2	8 993	2.1	120	1.6	3 139	2.0
Amelia -----	292	1.1	5 934	5.2	273	.9	35 719	1.1	236	1.1	21 464	1.2
Amherst -----	417	1.3	(D)	(D)	374	1.2	35 261	1.9	303	1.4	13 293	2.0
Appomattox -----	352	1.3	(D)	(D)	333	1.2	42 079	1.7	298	1.4	19 270	1.3
Arlington -----	2	—	(D)	(D)	2	—	(D)	(D)	2	—	(D)	(D)
Augusta -----	1 513	.9	13 410	4.8	1 288	.8	142 029	.7	1 100	.8	78 525	.6
Bath -----	119	1.9	(D)	(D)	113	1.2	15 031	1.2	91	1.6	6 103	1.3
Bedford -----	1 227	1.1	2 990	16.3	1 129	1.0	103 238	1.0	996	1.0	49 258	.9
Bland -----	341	1.4	1 543	35.8	314	1.2	24 310	1.5	283	1.3	10 249	1.5
Botetourt -----	512	1.0	744	42.7	461	.8	41 373	1.3	405	.9	18 689	1.3
Brunswick -----	337	1.7	3 738	5.2	324	1.4	35 411	1.2	301	1.4	18 902	1.1
Buchanan -----	102	3.3	236	15.3	94	2.4	2 425	3.8	88	2.6	733	5.0
Buckingham -----	335	1.4	1 931	11.3	316	1.0	31 929	1.5	271	1.2	14 459	1.6
Campbell -----	613	1.3	3 093	11.7	585	1.0	64 917	1.1	519	1.1	31 178	1.4
Caroline -----	181	1.3	1 530	14.9	174	.9	35 707	.8	158	1.2	29 631	.8
Carroll -----	884	1.1	3 884	12.8	804	1.1	61 623	1.2	696	1.2	24 435	1.2
Charles City -----	66	4.2	1 154	1.2	63	2.1	18 101	.8	50	2.8	16 605	.9
Charlotte -----	450	1.5	4 065	10.3	437	1.4	50 211	1.5	403	1.5	19 138	1.7
Chesterfield -----	145	2.1	1 651	3.1	131	1.2	8 920	2.3	109	1.6	5 569	2.1
Clarke -----	319	1.1	(D)	(D)	275	1.1	43 603	1.1	218	1.3	24 571	1.1
Craig -----	170	1.9	241	35.9	157	.8	17 580	1.9	143	1.0	7 533	2.7
Culpeper -----	471	1.2	3 258	21.7	438	1.0	72 564	1.2	365	1.2	44 440	1.0
Cumberland -----	238	1.5	5 259	2.7	218	.9	30 531	1.1	187	1.1	12 321	1.4
Dickenson -----	104	3.4	71	56.8	100	2.2	(D)	(D)	88	2.6	(D)	(D)
Dinwiddie -----	345	1.3	4 861	10.8	320	1.3	39 453	1.1	285	1.4	26 967	.9
Essex -----	121	2.1	1 341	5.7	116	1.6	38 648	.8	102	1.9	34 612	.8
Fairfax -----	151	2.1	(D)	(D)	116	2.0	4 979	3.7	79	2.8	1 675	4.2
Fauquier -----	924	1.1	(D)	(D)	808	1.0	119 595	.8	620	1.2	69 265	.7
Floyd -----	761	1.0	3 825	9.3	709	.7	58 120	1.0	649	.8	25 619	1.0
Fluvanna -----	263	1.1	(D)	(D)	239	.9	23 572	1.8	196	1.2	11 337	1.9
Franklin -----	935	1.2	8 026	8.8	884	1.0	82 657	.8	797	1.0	43 391	.8
Frederick -----	537	.9	3 234	16.2	495	.8	58 494	.9	418	1.0	34 585	.9
Giles -----	332	1.5	688	37.3	302	1.3	30 476	1.9	263	1.4	8 063	1.7
Gloucester -----	110	2.0	1 154	6.5	107	1.0	17 925	1.6	92	1.4	16 401	1.5
Goochland -----	232	1.9	(D)	(D)	203	1.4	27 288	1.3	169	1.7	15 817	1.3
Grayson -----	870	1.1	3 890	10.5	796	1.0	65 672	1.1	712	1.0	21 588	1.0
Greene -----	207	1.5	(D)	(D)	190	1.3	18 143	2.2	164	1.6	8 474	3.2
Greenville -----	156	1.9	2 818	7.8	142	1.5	32 494	.9	125	1.9	25 482	.8
Halifax -----	1 042	1.5	10 953	6.2	1 016	1.5	95 381	1.1	937	1.5	36 971	1.0
Hanover -----	549	1.2	2 887	11.8	490	1.1	61 063	.7	428	1.2	47 097	.7
Henrico -----	149	2.5	1 840	7.5	136	1.8	14 468	1.9	120	2.0	10 057	1.8
Henry -----	286	1.8	(D)	(D)	255	1.8	25 518	3.4	199	2.1	9 365	2.5
Highland -----	298	1.1	1 781	10.7	257	1.1	32 761	1.7	213	1.3	9 438	2.2
Isle of Wight -----	212	.9	8 139	2.6	197	.9	59 877	.3	184	1.0	53 206	.3
James City -----	61	3.5	361	3.7	56	1.6	4 973	1.2	47	2.3	4 215	.9
King and Queen -----	135	2.1	1 003	7.4	132	1.1	37 132	.8	124	1.3	33 598	.9
King George -----	128	2.2	1 718	5.4	125	1.0	22 453	1.2	118	1.1	17 767	1.2

See footnotes at end of table.

## 1992 CENSUS OF AGRICULTURE

## APPENDIX C C-23

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Net cash return from agricultural sales for the farm unit (see text) <sup>1</sup>				Total cropland				Harvested cropland			
	Farms		Value		Farms		Acres		Farms		Acres	
	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)
King William -----	126	2.2	1 889	3.9	117	1.7	40 228	.8	103	2.0	36 189	.8
Lancaster -----	71	4.6	300	6.0	68	2.6	13 713	1.5	63	2.6	11 882	1.6
Lee -----	1 287	1.7	4 963	8.7	1 240	1.7	61 161	1.6	1 159	1.8	20 275	1.6
Loudoun -----	942	1.1	(D)	(D)	836	1.1	124 982	.9	667	1.1	69 572	.8
Louisa -----	384	1.4	(D)	(D)	336	1.4	39 794	1.3	294	1.5	21 646	1.3
Lunenburg -----	362	1.2	2 298	17.5	345	1.2	35 625	1.2	312	1.3	13 987	1.2
Madison -----	440	1.0	2 057	12.1	377	.7	51 154	.9	334	.9	28 844	.9
Mathews -----	61	3.1	(D)	(D)	59	.9	4 761	3.6	55	1.2	3 958	4.3
Mecklenburg -----	645	1.4	8 009	6.4	619	1.2	83 035	.9	558	1.3	35 407	.9
Middlesex -----	81	4.3	732	3.3	79	2.2	14 582	1.7	76	2.3	12 336	1.8
Montgomery -----	538	1.0	2 182	16.9	481	1.0	46 786	1.1	421	1.1	20 482	.8
Nelson -----	358	1.5	371	63.7	328	1.4	32 513	1.9	270	1.6	12 947	2.0
New Kent -----	67	3.5	642	3.3	64	1.5	12 857	1.0	59	1.9	11 489	.9
Northampton -----	161	1.6	5 297	2.6	160	1.3	44 627	.5	157	1.4	41 617	.5
Northumberland -----	127	2.2	1 071	9.0	124	1.3	33 745	1.2	119	1.4	30 066	.9
Nottoway -----	324	1.7	3 797	7.6	312	1.3	30 762	1.7	281	1.4	13 830	1.5
Orange -----	420	1.4	915	51.2	384	1.5	60 007	1.3	327	1.5	31 888	1.2
Page -----	522	1.1	10 837	2.7	433	1.0	36 964	1.3	364	1.2	18 506	1.3
Patrick -----	557	1.6	1 783	11.4	533	1.4	33 668	1.4	484	1.4	14 833	1.2
Pittsylvania -----	1 389	1.1	18 102	5.9	1 321	1.0	131 438	.8	1 202	1.0	59 095	.8
Powhatan -----	195	1.4	1 028	28.8	177	1.4	19 337	1.8	152	1.7	12 312	1.9
Prince Edward -----	304	1.5	967	26.6	293	1.2	33 794	1.1	261	1.3	15 175	1.0
Prince George -----	149	2.0	1 251	9.6	142	.7	28 291	.9	127	1.0	22 057	.9
Prince William -----	259	1.4	(D)	(D)	227	1.3	21 903	2.1	182	1.7	12 565	2.0
Pulaski -----	363	1.3	2 669	7.9	330	1.3	35 645	1.5	283	1.4	16 520	1.1
Rappahannock -----	312	1.1	325	88.3	283	1.0	35 804	1.3	231	1.3	17 515	1.3
Richmond -----	130	2.2	1 979	5.6	124	1.8	28 301	1.5	121	1.8	25 614	1.6
Roanoke -----	272	1.2	2 094	4.6	239	1.3	11 856	2.6	196	1.5	5 179	2.6
Rockbridge -----	643	1.2	1 724	33.1	564	1.2	61 295	1.3	468	1.3	25 887	1.1
Rockingham -----	1 863	.8	58 515	1.4	1 567	.7	148 539	.5	1 349	.7	85 802	.4
Russell -----	1 103	1.9	7 196	10.8	1 047	1.8	55 610	1.8	993	1.8	20 095	1.7
Scott -----	1 540	1.5	7 243	5.8	1 495	1.4	54 855	1.6	1 428	1.4	19 767	1.7
Shenandoah -----	833	1.0	5 327	5.8	742	.8	73 314	.9	641	.9	39 087	.9
Smyth -----	839	1.4	3 671	11.7	798	1.2	55 442	1.0	747	1.2	21 918	.8
Southampton -----	329	1.2	12 539	4.0	301	.9	107 187	.3	283	.9	91 366	.3
Spotsylvania -----	256	1.5	(D)	(D)	233	1.3	25 638	1.3	209	1.4	15 502	1.6
Stafford -----	166	1.9	(D)	(D)	151	1.0	10 942	1.8	131	1.3	6 939	1.7
Surry -----	110	1.9	1 857	3.0	105	1.4	32 501	.4	103	1.5	29 195	.4
Sussex -----	160	1.8	4 936	3.1	143	1.3	50 096	.5	131	1.4	40 157	.4
Tazewell -----	494	1.4	2 789	13.6	434	1.3	44 320	1.4	365	1.4	17 270	1.1
Warren -----	207	1.6	(D)	(D)	185	1.5	21 280	2.4	158	1.8	9 592	2.7
Washington -----	1 985	1.3	12 616	3.9	1 911	1.2	94 312	1.1	1 811	1.2	37 786	.9
Westmoreland -----	159	1.7	2 506	4.3	154	1.2	38 348	.8	151	1.3	33 890	.8
Wise -----	122	3.1	(D)	(D)	106	2.7	6 794	4.1	91	3.0	2 142	5.1
Wythe -----	725	1.3	4 353	16.8	661	1.0	75 075	1.0	592	1.0	33 940	.9
York -----	55	4.6	(D)	(D)	51	2.3	1 369	7.1	43	3.0	994	8.9
Chesapeake (IC) -----	189	1.4	2 746	7.0	173	1.3	47 754	.5	151	1.5	43 836	.5
Suffolk (IC) -----	269	1.0	6 570	2.5	241	1.1	64 100	.5	212	1.3	58 554	.5
Virginia Beach (IC) -----	157	1.9	3 220	5.0	135	1.4	38 926	.5	123	1.6	34 870	.4
Geographic area	Irrigated land				Livestock and poultry							
	Farms		Acres		Cattle and calves inventory				Beef cows inventory			
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)
Virginia -----	2 312	.9	61 759	.4	27 638	1.0	1 653 191	.8	22 519	1.0	674 068	1.0
Accomack -----	56	2.6	7 889	.3	23	5.2	727	5.0	23	5.2	(D)	(D)
Albermarle -----	38	4.1	355	7.1	484	1.4	33 608	1.2	418	1.5	17 165	1.3
Alleghany -----	1	29.5	(D)	(D)	116	1.8	3 575	1.9	87	2.4	(D)	(D)
Amelia -----	24	4.0	582	2.5	186	1.4	13 299	1.3	154	1.7	4 659	1.9
Amherst -----	8	9.5	30	20.4	329	1.3	18 253	1.7	290	1.5	9 521	1.8
Appomattox -----	12	9.4	79	5.7	280	1.5	18 024	1.8	251	1.6	9 033	2.2
Arlington -----	2	—	(D)	(D)	—	—	—	—	—	—	—	—
Augusta -----	38	3.6	1 608	2.4	1 218	.8	105 262	.6	840	1.0	32 365	1.0
Bath -----	—	—	—	—	95	1.6	5 532	1.6	79	2.0	2 807	1.5
Bedford -----	25	5.7	184	7.0	1 041	1.0	55 814	.9	926	1.1	26 957	1.2
Bland -----	1	31.8	(D)	(D)	290	1.3	14 361	1.4	229	1.6	5 855	2.0
Botetourt -----	14	6.4	286	3.5	408	1.0	24 284	1.1	346	1.1	9 068	1.6
Brunswick -----	74	2.8	1 660	1.3	168	2.0	9 424	1.9	150	2.2	4 044	2.2
Buchanan -----	1	46.3	(D)	(D)	56	3.9	803	5.3	42	4.7	435	6.4
Buckingham -----	9	9.1	72	12.4	255	1.3	14 841	1.7	232	1.4	7 592	1.6
Campbell -----	53	3.4	654	2.6	442	1.2	26 942	1.0	392	1.3	12 773	1.2
Caroline -----	9	6.3	724	.5	83	2.3	4 259	2.5	72	2.5	(D)	(D)
Carroll -----	26	5.0	445	1.6	694	1.2	33 200	1.2	534	1.4	12 542	1.5
Charles City -----	6	12.7	(D)	(D)	24	5.9	1 059	5.3	23	6.1	(D)	(D)

See footnotes at end of table.

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## 1992 CENSUS OF AGRICULTURE

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Irrigated land				Livestock and poultry							
	Farms		Acres		Cattle and calves inventory				Beef cows inventory			
					Farms		Total		Farms		Total	
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)
Charlotte -----	92	3.3	1 313	2.6	259	1.9	16 053	1.9	208	2.2	6 813	2.4
Chesterfield -----	19	3.8	373	.8	57	3.0	1 175	3.9	52	3.2	(D)	(D)
Clarke -----	9	7.7	106	3.4	212	1.4	18 847	1.5	175	1.6	7 641	2.0
Craig -----	6	8.1	(D)	(D)	138	1.1	8 185	1.6	126	1.3	4 781	1.7
Culpeper -----	14	5.4	351	1.4	344	1.3	32 625	1.1	294	1.4	11 823	1.4
Cumberland -----	7	9.0	171	4.0	171	1.3	13 757	1.4	153	1.5	6 794	1.6
Dickenson -----	-	-	-	-	84	2.7	1 449	4.8	72	3.1	923	5.3
Dinwiddie -----	63	3.0	1 447	1.7	139	2.3	7 599	2.5	125	2.5	3 093	2.8
Essex -----	9	5.9	534	.4	22	5.7	843	6.6	17	6.4	(D)	(D)
Fairfax -----	20	5.8	46	7.5	43	4.5	1 515	4.1	36	5.0	(D)	(D)
Fauquier -----	27	4.5	598	5.3	575	1.2	61 860	.6	448	1.4	24 532	.9
Floyd -----	18	5.8	161	4.8	610	.8	34 556	.9	508	1.0	13 663	1.2
Fluvanna -----	10	6.8	49	13.3	179	1.3	10 158	1.7	159	1.5	4 332	2.2
Franklin -----	99	2.5	1 223	3.0	732	1.1	48 206	.8	567	1.3	13 737	1.7
Frederick -----	23	4.6	112	6.3	352	1.1	19 078	1.2	301	1.3	9 287	1.4
Giles -----	5	13.8	22	14.9	277	1.5	12 425	1.5	249	1.6	6 178	1.7
Gloucester -----	10	6.5	53	1.5	31	4.2	699	5.8	25	4.9	(D)	(D)
Goochland -----	5	15.1	17	31.9	163	1.8	8 303	2.2	150	1.9	4 174	2.4
Grayson -----	10	8.7	13	11.3	654	1.1	33 846	.9	487	1.2	12 942	1.3
Greene -----	6	11.4	(D)	(D)	160	1.7	8 804	1.8	139	1.9	4 209	2.4
Greenville -----	20	5.7	864	8.0	60	3.5	1 799	4.5	56	3.7	1 024	4.6
Halifax -----	146	2.1	2 482	1.5	498	1.7	20 568	1.4	460	1.7	11 565	1.5
Hanover -----	48	2.7	1 960	.7	277	1.5	14 770	1.2	233	1.7	5 644	1.5
Henrico -----	16	4.7	49	6.0	59	3.6	1 734	3.6	54	3.8	(D)	(D)
Henry -----	11	5.4	464	2.3	200	2.1	7 469	3.6	182	2.2	3 749	4.0
Highland -----	-	-	-	-	221	1.3	12 165	1.5	169	1.6	(D)	(D)
Isle of Wight -----	13	4.4	767	1.3	70	1.9	5 052	1.1	64	2.0	2 655	1.1
James City -----	12	5.7	82	7.8	16	5.9	906	2.4	9	9.0	(D)	(D)
King and Queen -----	7	8.0	189	7.4	36	3.9	1 119	3.6	31	4.4	(D)	(D)
King George -----	10	3.5	1 317	.3	46	3.1	2 529	3.7	44	3.2	(D)	(D)
King William -----	8	-	1 556	-	46	3.8	3 622	1.2	30	5.2	629	3.4
Lancaster -----	2	22.6	(D)	(D)	13	7.8	478	5.2	7	11.5	124	8.1
Lee -----	18	8.5	50	17.1	816	1.8	28 782	1.6	703	1.8	14 696	1.7
Loudoun -----	39	3.7	848	3.8	504	1.4	34 018	1.3	403	1.5	15 945	1.7
Louisa -----	7	10.5	13	9.9	283	1.5	18 761	1.5	256	1.6	8 762	1.5
Lunenburg -----	53	3.1	1 382	1.1	213	1.6	10 270	1.7	193	1.7	5 828	1.7
Madison -----	4	5.8	(D)	(D)	354	.8	33 185	.8	299	1.0	13 529	1.1
Mathews -----	8	7.9	123	2.3	17	5.6	308	9.4	14	6.6	168	9.5
Mecklenburg -----	173	1.8	3 787	.9	412	1.5	26 059	1.2	376	1.6	12 933	1.4
Middlesex -----	4	12.1	(D)	(D)	23	5.9	1 425	6.4	18	7.2	(D)	(D)
Montgomery -----	12	6.6	133	5.5	432	1.1	26 991	.8	339	1.3	9 963	1.1
Nelson -----	17	6.0	229	.7	267	1.6	14 056	2.1	233	1.8	7 567	2.2
New Kent -----	3	13.7	(D)	(D)	21	5.7	422	7.1	18	6.0	(D)	(D)
Northampton -----	60	2.2	6 688	.2	7	9.2	235	2.7	5	12.8	27	13.4
Northumberland -----	6	4.5	(D)	(D)	20	6.5	682	7.1	11	10.3	(D)	(D)
Nottoway -----	20	4.1	382	1.1	225	1.7	13 578	1.7	192	1.9	5 303	2.3
Orange -----	9	4.9	247	.5	315	1.7	28 891	1.3	273	1.9	10 881	1.8
Page -----	9	8.1	34	10.3	381	1.1	24 617	1.4	321	1.3	10 177	1.6
Patrick -----	19	5.7	226	4.1	358	1.7	14 617	1.6	316	1.8	6 476	2.0
Pittsylvania -----	285	1.4	5 651	.9	812	1.2	36 387	1.1	717	1.3	17 318	1.4
Powhatan -----	12	8.0	33	7.1	128	1.9	9 387	1.3	101	2.3	3 341	2.3
Prince Edward -----	10	7.4	117	2.2	178	1.6	13 319	1.2	159	1.7	5 739	1.6
Prince George -----	3	9.8	(D)	(D)	58	2.5	2 029	3.5	52	2.8	(D)	(D)
Prince William -----	9	7.5	56	3.2	149	2.1	7 153	2.2	111	2.6	2 615	3.4
Pulaski -----	5	4.6	9	5.2	293	1.3	22 929	1.0	235	1.5	9 346	1.4
Rappahannock -----	9	8.7	142	1.7	218	1.3	16 602	1.4	187	1.5	9 288	1.4
Richmond -----	8	10.7	121	1.4	31	5.3	1 284	3.2	29	5.5	(D)	(D)
Roanoke -----	25	3.4	125	3.9	169	1.8	5 446	2.0	138	2.1	2 479	2.4
Rockbridge -----	11	6.0	168	5.0	531	1.3	36 946	1.0	452	1.4	17 290	1.2
Rockingham -----	63	2.6	2 182	.8	1 413	.7	112 921	.4	813	1.0	24 188	.9
Russell -----	20	7.8	95	13.2	855	1.8	43 762	1.6	720	2.0	21 241	1.8
Scott -----	24	6.5	110	8.4	949	1.5	25 480	1.8	781	1.6	12 200	1.8
Shenandoah -----	20	5.0	618	3.6	623	1.0	34 924	.9	483	1.2	13 011	1.3
Smyth -----	9	9.9	56	10.8	580	1.2	33 516	1.0	431	1.4	13 640	1.2
Southampton -----	11	3.3	987	(L)	122	1.6	7 644	1.3	105	1.7	(D)	(D)
Spotsylvania -----	5	15.3	(D)	(D)	151	1.9	11 015	1.4	135	2.1	4 271	1.8
Stafford -----	5	9.3	14	17.0	92	1.9	3 372	2.2	84	2.1	(D)	(D)
Surry -----	9	6.8	991	.1	28	3.4	1 476	1.6	19	4.3	(D)	(D)
Sussex -----	13	3.8	980	(L)	39	4.4	1 770	4.1	39	4.4	1 139	4.5
Tazewell -----	3	19.5	4	19.4	405	1.4	31 467	1.0	293	1.7	11 972	1.3
Warren -----	2	18.6	(D)	(D)	152	1.9	8 467	2.9	121	2.3	3 831	3.5
Washington -----	30	5.5	92	12.2	1 235	1.2	62 248	.9	980	1.3	22 558	1.2
Westmoreland -----	23	4.5	1 046	.8	38	3.5	2 990	1.8	29	3.8	(D)	(D)
Wise -----	2	-	(D)	(D)	83	3.1	2 007	2.4	74	3.4	903	3.0
Wythe -----	16	5.6	286	5.5	609	1.0	40 685	.9	457	1.2	13 918	1.5
York -----	6	9.3	22	5.5	9	10.7	272	6.1	7	13.0	50	13.5
Chesapeake (IC) -----	24	4.6	182	4.3	38	4.4	2 643	1.0	27	5.5	404	3.4
Suffolk (IC) -----	22	5.0	563	.7	51	2.8	2 379	1.2	40	3.2	(D)	(D)
Virginia Beach (IC) -----	25	4.0	247	3.0	15	8.3	313	8.3	12	9.3	180	7.5

See footnotes at end of table.

## 1992 CENSUS OF AGRICULTURE

## APPENDIX C C-25

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Livestock and poultry —Con.											
	Milk cows inventory				Hogs and pigs inventory				Sheep and lambs inventory			
	Farms		Total		Farms		Total		Farms		Total	
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)
Virginia	2 369	.7	140 033	.2	2 085	1.1	412 736	.3	1 727	1.1	117 714	1.1
Accomack	2	—	(D)	(D)	8	8.2	2 574	1.7	2	19.2	(D)	(D)
Albermarle	24	4.8	1 154	.3	15	7.2	548	7.8	40	4.7	3 737	4.6
Alleghany	1	—	(D)	(D)	4	14.7	41	17.0	6	11.1	95	12.7
Amelia	22	3.2	2 377	.5	24	5.5	348	12.1	3	17.0	300	18.3
Amherst	9	10.2	217	2.7	13	8.2	158	19.7	7	11.5	330	5.2
Appomattox	19	3.6	1 121	.7	10	10.7	175	13.4	6	14.3	431	20.9
Arlington	—	—	—	—	—	—	—	—	—	—	—	—
Augusta	145	1.2	12 056	.3	97	2.5	4 050	3.5	181	2.1	12 288	2.8
Bath	7	9.7	19	11.4	7	9.4	43	11.5	15	5.9	1 163	8.5
Bedford	64	2.4	4 213	.7	36	4.9	860	6.4	28	5.2	871	7.3
Bland	33	3.7	1 080	1.6	16	8.1	118	11.7	30	4.8	1 154	4.2
Botetourt	33	3.6	2 021	1.5	19	6.3	940	8.4	11	8.2	694	3.9
Brunswick	11	5.0	1 019	.3	33	3.7	5 390	.6	12	9.5	265	18.4
Buchanan	10	12.2	31	14.2	10	12.0	24	13.5	2	28.8	(D)	(D)
Buckingham	9	8.4	361	.9	21	5.3	2 104	3.9	11	7.8	693	8.7
Campbell	31	3.9	1 412	1.6	20	6.5	923	1.4	14	8.2	553	6.3
Caroline	3	9.2	(D)	(D)	11	7.8	446	9.8	3	15.6	76	16.3
Carroll	61	2.9	2 033	1.7	10	8.9	44	8.2	17	6.9	496	7.2
Charles City	2	15.7	(D)	(D)	5	12.8	(D)	(D)	2	23.2	(D)	(D)
Charlotte	29	4.6	1 429	1.7	16	8.2	1 270	4.0	4	18.1	378	22.8
Chesterfield	2	18.6	(D)	(D)	12	6.7	444	3.9	6	12.3	282	14.1
Clarke	27	3.3	2 028	1.0	21	6.0	1 211	5.0	38	4.5	2 527	7.2
Craig	8	8.5	164	7.1	11	7.7	257	14.1	10	7.9	581	8.6
Culpeper	29	3.0	3 364	.3	24	5.7	1 304	2.4	26	5.6	957	7.9
Cumberland	10	6.2	961	1.9	19	6.3	992	4.0	9	8.3	861	1.2
Dickenson	13	8.4	25	10.8	7	13.2	56	18.7	3	21.2	85	21.1
Dinwiddie	12	5.0	840	.9	28	5.4	6 746	.9	7	12.9	629	8.4
Essex	1	—	(D)	(D)	13	8.0	1 943	1.7	4	17.9	80	26.8
Fairfax	4	14.0	(D)	(D)	7	12.8	110	18.4	4	21.1	(D)	(D)
Fauquier	68	2.4	6 380	.7	47	4.1	849	3.8	34	4.5	2 503	2.0
Floyd	62	2.8	2 495	1.3	13	7.8	88	12.3	17	7.1	760	7.8
Fluvanna	7	11.6	24	15.5	10	10.7	266	15.1	10	8.3	364	6.5
Franklin	131	1.2	12 109	.3	25	5.9	694	13.9	9	10.3	112	14.0
Frederick	23	4.5	758	.5	37	4.4	1 612	5.7	29	5.2	875	7.1
Giles	12	9.1	46	14.7	4	14.0	12	13.2	18	6.1	823	6.4
Gloucester	1	—	(D)	(D)	9	8.1	122	16.6	6	10.3	161	9.1
Goochland	7	9.3	465	.9	14	7.9	366	10.9	4	17.8	110	21.3
Grayson	58	2.6	2 299	1.4	12	8.4	293	19.6	32	4.7	1 184	5.3
Greene	10	6.5	622	.8	8	12.4	997	8.4	15	8.5	835	11.7
Greensville	4	19.1	22	20.5	33	4.6	19 553	1.0	—	—	—	—
Halifax	26	6.0	473	2.8	70	3.8	3 725	1.2	10	8.6	292	10.3
Hanover	15	3.2	1 345	.2	26	5.7	2 280	7.1	17	6.4	999	13.1
Henrico	2	26.6	(D)	(D)	2	27.7	(D)	(D)	1	35.9	(D)	(D)
Henry	6	15.8	14	19.0	11	8.4	1 721	.9	3	25.6	(D)	(D)
Highland	9	7.3	(D)	(D)	8	11.2	63	11.7	136	1.9	9 415	2.4
Isle of Wight	—	—	—	—	35	2.4	62 135	(L)	3	9.0	(D)	(D)
James City	4	11.7	(D)	(D)	6	9.9	615	3.0	3	18.6	(D)	(D)
King and Queen	4	16.7	(D)	(D)	16	7.2	4 514	7.2	2	14.0	(D)	(D)
King George	1	—	(D)	(D)	5	13.8	42	18.8	5	7.7	209	8.7
King William	6	—	1 071	—	9	11.3	267	14.2	3	20.2	40	20.6
Lancaster	3	15.1	20	13.6	3	16.7	4	12.5	3	15.1	(D)	(D)
Lee	49	4.7	544	6.6	26	6.4	226	17.3	9	11.7	144	16.2
Loudoun	24	4.6	1 479	.6	35	5.0	1 369	3.7	71	3.8	2 578	8.1
Louisa	17	5.9	545	.9	28	4.8	1 086	2.1	15	8.0	450	10.6
Lunenburg	7	11.6	32	14.0	23	5.6	597	4.8	1	—	(D)	(D)
Madison	38	2.6	2 836	.5	30	4.0	2 495	5.4	15	5.3	1 136	6.8
Mathews	—	—	—	—	4	9.3	(D)	(D)	6	9.8	99	13.0
Mecklenburg	18	3.9	1 731	.1	31	4.8	1 795	2.1	5	13.9	268	30.1
Middlesex	6	10.8	(D)	(D)	3	21.7	(D)	(D)	1	—	(D)	(D)
Montgomery	46	1.8	2 905	.4	17	7.2	671	.9	31	4.2	2 703	2.0
Nelson	12	9.4	44	23.8	11	9.5	217	20.3	8	11.2	1 172	8.7
New Kent	1	—	(D)	(D)	3	11.7	(D)	(D)	2	24.5	(D)	(D)
Northampton	—	—	—	—	2	23.5	(D)	(D)	3	10.5	(D)	(D)
Northumberland	2	—	(D)	(D)	4	12.8	(D)	(D)	2	29.5	(D)	(D)
Nottoway	18	3.6	1 749	.1	19	5.9	(D)	(D)	13	6.3	852	5.1
Orange	26	4.1	2 068	.7	17	6.9	2 249	2.5	13	9.1	663	15.7
Page	16	6.4	702	4.6	56	3.5	3 044	3.3	35	4.9	1 947	5.4
Patrick	21	5.4	1 507	.8	24	6.0	1 441	5.1	4	15.1	170	11.2
Pittsylvania	48	3.6	1 574	.7	72	3.4	4 786	3.7	5	16.0	110	16.5
Powhatan	19	3.6	1 599	.2	16	7.6	697	2.1	4	11.6	25	17.7
Prince Edward	15	4.3	1 530	1.1	16	6.7	274	5.5	4	14.1	47	18.8
Prince George	2	19.3	(D)	(D)	6	8.9	(D)	(D)	4	9.6	88	14.8
Prince William	14	5.9	1 125	.3	8	11.9	55	15.5	15	9.4	360	10.8
Pulaski	22	4.0	1 631	1.0	8	11.8	(D)	(D)	19	6.1	2 982	2.7
Rappahannock	4	14.0	58	15.9	19	6.3	1 041	2.0	8	10.4	464	11.8
Richmond	2	—	(D)	(D)	7	11.2	(D)	(D)	2	17.2	(D)	(D)
Roanoke	6	9.9	175	1.5	9	10.6	231	25.9	3	19.8	179	16.5
Rockbridge	32	4.1	1 517	.9	32	5.2	341	5.1	36	4.8	2 306	7.5
Rockingham	318	.6	25 125	.2	117	2.2	11 220	2.8	164	2.0	21 855	1.7

See footnotes at end of table.

## C-26 APPENDIX C

## 1992 CENSUS OF AGRICULTURE

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Livestock and poultry —Con.										
	Milk cows inventory				Hogs and pigs inventory				Sheep and lambs inventory		
	Farms		Total		Farms		Total		Farms		Total
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Relative standard error of estimate (percent)
Russell -----	83	3.8	1 066	3.5	48	5.1	183	5.7	35	5.0	4 031 2.3
Scott -----	50	4.2	797	3.8	39	5.2	265	5.2	7	8.5	1 313 6.1
Shenandoah -----	50	2.7	2 535	.5	56	3.5	2 990	6.3	88	2.9	9 275 2.4
Smyth -----	46	2.6	2 576	.6	18	5.3	235	6.7	14	5.7	1 118 3.0
Southampton -----	2	18.2	(D)	(D)	73	2.1	47 961	.3	8	9.9	530 14.6
Spotsylvania -----	18	4.9	1 119	1.0	15	7.4	420	13.7	9	10.8	179 11.1
Stafford -----	8	8.4	(D)	(D)	9	8.8	255	12.1	3	14.5	(D) (D)
Surry -----	2	—	(D)	(D)	28	3.6	51 855	.1	3	18.9	39 21.5
Sussex -----	—	—	—	—	23	4.5	(D)	(D)	5	15.1	170 16.4
Tazewell -----	37	4.0	1 179	1.7	23	6.1	290	10.1	56	3.6	3 911 3.5
Warren -----	5	13.0	89	5.5	11	8.9	114	9.4	14	8.5	590 12.9
Washington -----	97	2.5	5 807	.7	48	4.5	786	7.2	28	6.0	1 849 5.9
Westmoreland -----	5	13.3	(D)	(D)	11	8.0	622	11.8	1	—	(D) (D)
Wise -----	7	13.2	200	2.7	4	13.7	56	17.6	—	—	—
Wythe -----	91	2.0	5 485	.7	33	4.6	(D)	(D)	76	3.2	4 430 4.7
York -----	—	—	—	—	2	25.2	(D)	(D)	1	33.1	(D) (D)
Chesapeake (IC) -----	4	—	559	—	14	8.4	2 335	5.9	3	23.0	(D) (D)
Suffolk (IC) -----	1	—	(D)	(D)	50	3.4	11 879	1.5	9	8.8	153 6.0
Virginia Beach (IC) -----	—	—	—	—	17	5.1	36 766	.4	8	12.3	96 13.0
Livestock and poultry —Con.											
Geographic area	Hens and pullets of laying age inventory					Broilers and other meat-type chickens sold					
	Farms		Total			Farms		Total			
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Number	Relative standard error of estimate (percent)	Number	Number	Relative standard error of estimate (percent)	Relative standard error of estimate (percent)
	<b>Virginia</b> -----	<b>2 022</b>	<b>1.1</b>	<b>4 883 025</b>	<b>.3</b>	<b>640</b>	<b>.4</b>	<b>201 697 436</b>	<b>—</b>	<b>—</b>	<b>—</b>
Accomack -----	10	10.5	(D)	(D)	60	.7	17 406 205	(D)	(D)	(D)	(D)
Albemarle -----	56	4.1	(D)	(D)	2	—	25.6	—	—	—	—
Alleghany -----	11	9.9	172	10.7	—	—	—	—	—	—	—
Amelia -----	18	5.2	(D)	(D)	23	—	10 768 069	—	—	—	—
Amherst -----	15	8.5	272	10.3	—	—	—	—	—	—	—
Appomattox -----	8	10.0	(D)	(D)	—	—	—	—	—	—	—
Arlington -----	1	—	(D)	(D)	—	—	—	—	—	—	—
Augusta -----	67	3.3	272 610	.1	24	2.5	6 203 535	(L)	(L)	(L)	(L)
Bath -----	8	8.7	297	9.9	—	—	—	—	—	—	—
Bedford -----	37	4.8	716	7.8	—	—	—	—	—	—	—
Bland -----	28	5.9	688	6.6	—	—	—	—	—	—	—
Botetourt -----	30	4.5	4 284	23.2	—	—	—	—	—	—	—
Brunswick -----	15	8.6	21 697	16.3	—	—	—	—	—	—	—
Buchanan -----	13	9.6	238	10.0	—	—	—	—	—	—	—
Buckingham -----	17	6.0	62 255	(L)	20	—	—	7 401 719	—	—	—
Campbell -----	27	5.6	(D)	(D)	—	—	—	—	—	—	—
Caroline -----	15	7.4	547	9.1	—	—	—	—	—	—	—
Carroll -----	25	5.6	561	7.6	—	—	—	—	—	—	—
Charles City -----	6	13.2	145	17.4	—	—	—	—	—	—	—
Charlotte -----	17	8.1	732	12.9	—	—	—	—	—	—	—
Chesterfield -----	8	10.3	435	13.7	4	—	—	1 557 078	—	—	—
Clarke -----	13	7.9	209	9.6	—	—	—	—	—	—	—
Craig -----	10	6.6	254	11.1	—	—	—	—	—	—	—
Culpeper -----	19	7.1	456	8.1	—	—	—	—	—	—	—
Cumberland -----	9	8.1	89 552	2.7	29	1.6	10 532 078	.2	—	—	—
Dickenson -----	14	8.9	422	10.7	—	—	—	—	—	—	—
Dinwiddie -----	16	7.9	829	10.7	3	12.6	(D)	(D)	(D)	(D)	(D)
Essex -----	4	12.6	46	12.3	—	—	—	—	—	—	—
Fairfax -----	16	8.4	748	11.9	—	—	—	—	—	—	—
Fauquier -----	70	3.6	2 156	6.1	1	32.6	(D)	(D)	(D)	(D)	(D)
Floyd -----	25	5.9	401	7.2	—	—	—	—	—	—	—
Fluvanna -----	24	5.3	(D)	(D)	1	—	—	(D)	(D)	(D)	(D)
Franklin -----	38	5.0	2 135	14.2	2	—	—	(D)	(D)	(D)	(D)
Frederick -----	30	4.7	(D)	(D)	—	—	—	—	—	—	—
Giles -----	15	7.1	235	8.3	—	—	—	—	—	—	—
Gloucester -----	12	7.8	289	12.6	—	—	—	—	—	—	—
Goochland -----	16	8.1	152	8.3	5	10.5	483 651	3.1	—	—	—
Grayson -----	18	6.9	248	7.8	1	22.3	(D)	(D)	(D)	(D)	(D)
Greene -----	9	12.2	(D)	(D)	4	11.8	(D)	(D)	(D)	(D)	(D)
Greenville -----	6	12.8	(D)	(D)	—	—	—	—	—	—	—
Halifax -----	55	4.1	1 070	5.6	—	—	—	—	—	—	—
Hanover -----	28	5.2	464	6.2	5	5.6	1 086 230	(L)	(L)	(L)	(L)
Henrico -----	3	20.6	127	28.8	1	—	—	(D)	(D)	(D)	(D)
Henry -----	13	10.0	255	9.7	—	—	—	—	—	—	—
Highland -----	12	7.5	275	6.8	—	—	—	—	—	—	—
Isle of Wight -----	4	10.8	(D)	(D)	12	—	—	3 130 679	—	—	—
James City -----	9	8.9	1 054	2.0	—	—	—	—	—	—	—
King and Queen -----	4	14.1	156	20.4	1	—	28.0	(D)	(D)	(D)	(D)
King George -----	4	14.0	87	16.1	—	—	—	—	—	—	—

See footnotes at end of table.

## 1992 CENSUS OF AGRICULTURE

TIPS [UPF] BATCH\_861 [ACEN,C\_ARLEDGE] 3/25/94 9:01 AM MACHINE: EPCV20 DATA:VOL1\_TIPS\_APX\_54.TIPS:1 \* 3/23/94 14:35:00 TAPE: NOreel FRAME: 21 TSF:TIPS92-14360637.DAT;1 3/23/94 14:36:13 UFT:TIPS93-14360637.DAT;1 3/23/94 14:36:13 META:VOL1\_TIPS96\_APX\_54.DAT;2 3/23/94 14:37:20

## APPENDIX C C-27

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Livestock and poultry —Con.											
	Hens and pullets of laying age inventory					Broilers and other meat-type chickens sold						
	Farms		Total			Farms		Total				
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number		
King William -----	8	12.0	260	14.2	—	—	—	—	—	—		
Lancaster -----	6	13.9	60	13.7	—	—	—	—	—	—		
Lee -----	41	5.5	1 090	7.9	—	—	—	—	—	—		
Loudoun -----	70	3.7	1 742	6.9	2	16.7	(D)	(D)	(D)	(D)		
Louisa -----	21	7.3	(D)	(D)	2	11.0	(D)	(D)	(D)	(D)		
Lunenburg -----	15	6.8	(D)	(D)	—	—	—	—	—	—		
Madison -----	17	5.4	434	7.7	—	—	—	—	—	—		
Mathews -----	5	9.3	(D)	(D)	—	—	—	—	—	—		
Mecklenburg -----	25	6.1	(D)	(D)	—	—	—	—	—	—		
Middlesex -----	1	—	(D)	(D)	—	—	—	—	—	—		
Montgomery -----	25	5.2	668	7.1	2	19.3	(D)	(D)	(D)	(D)		
Nelson -----	20	7.5	368	10.3	1	34.6	(D)	(D)	(D)	(D)		
New Kent -----	4	16.5	189	27.9	—	—	—	—	—	—		
Northampton -----	4	13.6	88	10.9	—	—	—	—	—	—		
Northumberland -----	2	21.7	(D)	(D)	—	—	—	—	—	—		
Nottoway -----	14	8.2	191 292	(L)	14	3.6	4 691 685	.9	—	—		
Orange -----	20	7.7	908	7.2	—	—	—	—	—	—		
Page -----	38	4.5	290 546	1.2	104	.6	36 405 281	.1	—	—		
Patrick -----	23	6.4	465	8.3	—	—	—	—	—	—		
Pittsylvania -----	38	5.0	670	5.8	—	—	—	—	—	—		
Powhatan -----	19	6.4	(D)	(D)	2	—	(D)	(D)	(D)	(D)		
Prince Edward -----	23	5.5	78 278	.1	8	4.4	1 694 340	.5	—	—		
Prince George -----	10	7.6	241	8.8	—	—	—	—	—	—		
Prince William -----	21	7.1	453	8.6	2	24.6	(D)	(D)	(D)	(D)		
Pulaski -----	17	6.2	282	8.0	—	—	—	—	—	—		
Rappahannock -----	19	6.8	478	10.9	1	27.9	(D)	(D)	(D)	(D)		
Richmond -----	7	11.5	388	35.6	—	—	—	—	—	—		
Roanoke -----	10	7.4	569 539	(L)	—	—	—	—	—	—		
Rockbridge -----	35	5.0	1 086	8.0	1	37.6	(D)	(D)	(D)	(D)		
Rockingham -----	128	2.0	1 320 675	.7	230	.3	76 248 729	.1	—	—		
Russell -----	55	4.5	1 065	4.8	1	36.5	(D)	(D)	(D)	(D)		
Scott -----	64	4.2	2 070	20.1	1	31.8	(D)	(D)	(D)	(D)		
Shenandoah -----	40	4.3	69 226	1.4	37	.7	14 234 863	.1	—	—		
Smyth -----	31	4.7	480	5.1	—	—	—	—	—	—		
Southampton -----	10	7.9	100 568	3.6	12	—	3 763 930	—	—	—		
Spotsylvania -----	17	7.9	523	8.2	—	—	—	—	—	—		
Stafford -----	19	6.2	469	7.8	—	—	—	—	—	—		
Surry -----	10	8.3	361	11.6	—	—	—	—	—	—		
Sussex -----	6	13.5	120	13.8	2	—	(D)	(D)	(D)	(D)		
Tazewell -----	26	6.2	435	7.6	—	—	—	—	—	—		
Warren -----	12	8.8	372	16.8	1	33.1	(D)	(D)	(D)	(D)		
Washington -----	48	4.9	(D)	(D)	—	—	—	—	—	—		
Westmoreland -----	4	13.0	160	26.3	—	—	—	—	—	—		
Wise -----	4	20.4	127	31.3	—	—	—	—	—	—		
Wythe -----	30	5.6	731	6.5	—	—	—	—	—	—		
York -----	5	14.9	81	25.2	—	—	—	—	—	—		
Chesapeake (IC) -----	9	11.1	302	23.4	1	—	(D)	(D)	(D)	(D)		
Suffolk (IC) -----	9	10.2	(D)	(D)	17	—	3 296 837	—	—	—		
Virginia Beach (IC) -----	9	12.0	493	14.3	1	40.0	(D)	(D)	(D)	(D)		
Geographic area	Selected crops harvested											
	Corn for grain or seed					Wheat for grain						
	Farms		Acres		Quantity		Farms		Acres			
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Bushels	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)		
<b>Virginia-----</b>	<b>6 169</b>	<b>1.0</b>	<b>361 326</b>	<b>.4</b>	<b>40 633 506</b>	<b>.3</b>	<b>3 670</b>	<b>1.1</b>	<b>241 042</b>	<b>.5</b>	<b>12 598 036</b>	<b>.4</b>
Accomack -----	41	2.6	6 913	.7	908 427	.4	110	2.0	20 048	1.0	1 140 115	.9
Alebermarle -----	31	4.0	1 319	1.9	132 083	1.9	11	6.0	686	2.3	33 682	2.4
Alleghany -----	8	11.0	114	14.6	6 890	17.4	—	—	—	—	—	—
Amelia -----	63	2.6	2 348	1.3	232 861	.9	43	3.4	1 664	3.6	89 757	3.2
Amherst -----	18	7.1	79	9.6	4 399	11.0	1	—	(D)	(D)	(D)	(D)
Appomattox -----	81	3.2	1 881	2.2	151 511	2.3	46	4.0	1 581	1.8	58 795	2.2
Arlington -----	—	—	—	—	—	—	—	—	—	—	—	—
Augusta -----	287	1.2	11 576	.8	1 148 599	.8	90	2.1	2 427	1.1	136 319	1.2
Bath -----	8	7.1	129	3.2	8 886	2.2	1	—	(D)	(D)	(D)	(D)
Bedford -----	77	2.7	1 919	1.5	184 096	1.4	21	4.5	525	4.0	20 394	4.2
Bland -----	32	4.5	233	3.7	20 603	2.9	2	—	(D)	(D)	(D)	(D)
Botetourt -----	44	3.2	1 084	1.7	111 154	1.6	6	7.8	163	8.2	7 520	8.9
Brunswick -----	38	3.4	1 145	.6	92 169	.4	74	2.6	2 270	1.2	98 279	1.1
Buchanan -----	5	10.1	12	10.9	1 480	7.4	—	—	—	—	—	—
Buckingham -----	34	4.4	961	3.8	64 586	5.4	14	6.1	331	2.7	9 611	3.7
Campbell -----	106	2.2	2 737	2.1	232 741	2.3	87	2.6	1 972	2.8	77 640	3.2
Caroline -----	45	3.1	6 101	.5	636 249	.5	47	2.7	4 638	.9	261 039	1.0
Carroll -----	20	6.1	179	7.6	13 486	9.9	—	—	—	—	—	—
Charles City -----	20	3.3	4 870	2.0	622 850	1.2	22	2.9	5 641	.5	357 451	.5

See footnotes at end of table.

## C-28 APPENDIX C

## 1992 CENSUS OF AGRICULTURE

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Selected crops harvested											
	Corn for grain or seed								Wheat for grain			
	Farms		Acres		Quantity		Farms		Acres		Quantity	
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Bushels	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Bushels	Relative standard error of estimate (percent)
Charlotte -----	67	3.9	1 427	2.7	136 129	2.5	94	3.2	2 200	3.4	90 484	3.2
Chesterfield -----	15	5.5	611	2.3	81 652	2.3	15	4.9	867	3.5	53 898	3.0
Clarke -----	36	3.6	2 069	3.7	231 190	2.9	22	3.7	1 673	2.9	93 764	2.4
Craig -----	18	5.4	285	7.8	23 240	7.7	1	29.7	(D)	(D)	(D)	(D)
Culpeper -----	84	2.4	7 745	1.5	782 564	1.6	33	3.3	2 461	1.2	131 712	.9
Cumberland -----	38	3.8	986	2.6	82 131	3.3	17	4.8	591	2.3	25 555	2.5
Dickenson -----	8	12.8	14	16.9	930	16.9	—	—	—	—	—	—
Dinwiddie -----	53	3.5	2 596	2.0	269 249	2.1	70	3.0	3 530	1.7	165 693	1.5
Essex -----	54	2.6	10 528	.4	1 269 797	.4	59	2.4	7 597	.9	428 466	1.0
Fairfax -----	3	18.3	(D)	(D)	(D)	(D)	1	39.0	(D)	(D)	(D)	(D)
Fauquier -----	121	2.1	11 404	.6	1 368 516	.5	54	3.1	3 669	1.3	191 753	1.5
Floyd -----	24	5.6	390	8.2	35 975	8.0	4	10.9	59	12.4	2 032	13.5
Fluvanna -----	26	5.1	632	5.0	49 623	5.1	17	6.2	550	7.4	21 493	7.0
Franklin -----	116	2.1	3 137	1.8	290 464	1.8	66	2.6	1 203	2.4	40 921	2.7
Frederick -----	95	2.0	2 644	1.1	261 980	1.2	33	3.1	811	1.6	44 915	1.6
Giles -----	28	4.8	177	6.4	15 244	7.3	1	26.6	(D)	(D)	(D)	(D)
Gloucester -----	37	2.6	5 385	1.7	695 419	1.7	17	4.4	976	2.3	51 874	2.2
Goochland -----	21	4.8	2 955	1.7	302 965	1.4	18	6.1	1 837	2.6	87 244	2.4
Grayson -----	10	5.8	460	1.1	43 120	.4	—	—	—	—	—	—
Greene -----	25	5.6	1 067	4.3	114 127	3.7	5	15.1	49	14.4	1 870	15.1
Greenville -----	61	3.2	3 386	2.2	319 786	2.2	29	3.9	1 294	1.3	68 867	1.0
Halifax -----	199	2.1	3 455	1.5	211 018	2.1	295	1.7	6 833	1.2	282 117	1.2
Hanover -----	68	2.1	8 659	.7	1 102 130	.6	73	2.5	7 158	1.4	403 045	1.3
Henrico -----	7	6.8	1 697	1.6	227 093	1.9	17	5.7	2 366	3.0	144 425	3.0
Henry -----	19	7.1	810	1.8	83 194	1.5	6	9.9	(D)	(D)	(D)	(D)
Highland -----	3	14.4	(D)	(D)	(D)	(D)	—	—	—	—	—	—
Isle of Wight -----	146	1.2	16 156	.4	1 819 035	.3	83	1.6	6 875	.6	326 247	.6
James City -----	12	5.4	1 302	1.3	200 040	1.1	9	5.0	652	1.2	28 141	.5
King and Queen -----	63	2.6	10 723	1.0	1 407 412	1.0	43	3.1	5 908	1.1	329 884	1.1
King George -----	35	3.0	4 833	1.5	519 670	1.4	32	3.3	3 749	1.0	213 067	.9
King William -----	54	2.9	10 855	.5	1 563 205	.4	48	3.2	7 593	.9	432 713	.8
Lancaster -----	38	3.6	3 570	1.9	443 682	1.9	33	4.3	2 318	2.5	119 551	2.7
Lee -----	187	2.6	1 209	3.3	107 325	3.6	1	31.2	(D)	(D)	(D)	(D)
Loudoun -----	129	2.2	10 438	.9	1 006 151	.9	76	2.7	7 083	2.0	408 068	1.8
Louisa -----	64	3.0	2 629	1.1	255 812	1.2	54	3.4	1 495	3.9	62 720	1.9
Lunenburg -----	41	4.2	498	5.1	31 030	6.6	56	3.4	1 112	3.4	43 019	3.7
Madison -----	96	1.9	6 211	1.0	701 324	.9	12	5.2	268	4.2	12 150	3.8
Mathews -----	17	5.4	887	6.5	91 680	6.2	12	6.8	410	5.1	20 530	4.9
Mecklenburg -----	98	2.8	1 520	2.0	118 036	2.2	143	1.9	3 660	3.1	141 100	1.6
Middlesex -----	21	5.9	3 167	1.7	396 125	1.6	30	4.6	2 957	2.1	160 440	1.6
Montgomery -----	25	4.0	1 582	.5	153 143	.4	4	4.9	150	3.7	7 890	3.8
Nelson -----	28	5.7	595	6.1	59 372	5.1	2	22.8	(D)	(D)	(D)	(D)
New Kent -----	22	3.6	3 567	1.5	507 557	1.4	14	4.3	1 715	.9	93 201	.6
Northampton -----	18	5.2	1 195	2.9	144 930	2.5	81	1.9	13 075	.8	769 562	.7
Northumberland -----	78	2.0	8 507	1.1	1 029 812	1.2	93	1.6	10 398	1.1	571 608	1.1
Nottoway -----	31	3.9	682	1.6	63 471	1.4	16	6.0	439	3.4	16 981	3.6
Orange -----	78	2.9	4 030	2.1	440 687	1.8	20	4.5	630	6.6	31 775	7.5
Page -----	123	2.1	3 601	2.0	357 768	2.2	29	3.7	569	2.6	27 964	2.2
Patrick -----	101	3.1	1 983	1.5	183 272	1.4	17	6.5	127	5.4	4 172	7.6
Pittsylvania -----	239	1.8	3 458	1.8	260 255	2.0	374	1.3	10 807	1.0	433 234	.9
Powhatan -----	18	5.3	1 089	2.5	108 872	2.3	17	7.3	682	10.6	29 836	12.1
Prince Edward -----	52	3.2	1 298	1.4	125 892	1.4	40	3.1	1 003	1.8	40 060	1.8
Prince George -----	49	2.6	5 285	1.0	653 627	.9	38	2.9	3 856	2.0	235 563	1.6
Prince William -----	24	5.5	2 030	2.5	222 213	2.3	18	5.8	1 242	2.2	62 929	2.1
Pulaski -----	19	4.6	624	1.7	74 246	1.5	3	—	46	—	(D)	(D)
Rappahannock -----	27	3.6	570	3.7	54 184	4.7	9	6.3	156	4.6	6 033	1.8
Richmond -----	65	3.2	6 957	2.3	804 162	2.3	79	2.8	6 217	2.1	334 926	2.0
Roanoke -----	3	10.7	108	5.4	9 680	3.6	2	9.6	(D)	(D)	(D)	(D)
Rockbridge -----	54	2.9	1 733	2.1	138 007	2.0	9	7.7	138	5.0	5 897	5.1
Rockingham -----	410	.8	16 455	.6	1 737 737	.6	80	2.1	1 834	2.1	87 732	2.0
Russell -----	86	3.9	260	6.7	20 363	7.1	—	—	—	—	—	—
Scott -----	132	2.9	494	3.7	40 330	4.0	2	24.9	(D)	(D)	(D)	(D)
Shenandoah -----	166	1.8	5 262	.9	570 421	.9	57	3.0	1 206	1.7	64 151	1.8
Smyth -----	73	2.5	1 147	.7	122 591	.6	—	—	—	—	—	—
Southampton -----	225	1.1	27 866	.3	3 280 518	.3	92	1.5	6 345	.7	349 182	.6
Spotsylvania -----	36	3.6	1 811	2.6	217 152	2.4	25	4.8	805	4.0	42 679	3.5
Stafford -----	20	4.8	876	4.2	100 502	5.0	8	7.0	469	1.1	23 894	.7
Surry -----	56	2.2	6 767	.5	749 251	.4	60	2.2	5 964	.8	334 726	.5
Sussex -----	70	1.9	7 242	.5	834 501	.5	67	1.7	6 279	.5	335 854	.5
Tazewell -----	44	4.0	344	2.2	31 628	1.9	5	12.2	19	11.4	514	12.2
Warren -----	11	9.4	129	9.6	12 492	9.9	3	12.4	45	5.0	2 274	2.9
Washington -----	162	2.3	2 067	1.6	203 318	1.5	3	10.3	(D)	(D)	(D)	(D)
Westmoreland -----	79	2.1	9 230	1.1	1 035 123	1.0	79	2.2	7 944	1.1	434 777	1.0
Wise -----	3	18.3	8	17.5	850	18.5	—	—	—	—	—	—
Wythe -----	75	2.7	1 168	2.1	109 085	2.5	7	8.9	91	10.4	3 560	10.1
York -----	2	28.0	(D)	(D)	(D)	(D)	4	16.2	(D)	(D)	(D)	(D)
Chesapeake (IC) -----	62	2.7	12 067	.6	1 560 899	.7	43	3.2	7 587	.9	360 078	.9
Suffolk (IC) -----	164	1.4	20 027	.6	2 154 997	.5	73	1.8	7 003	.7	396 805	.7
Virginia Beach (IC) -----	44	2.8	8 960	.5	1 218 741	.6	43	2.7	11 310	.5	524 944	.6

See footnotes at end of table.

## 1992 CENSUS OF AGRICULTURE

## APPENDIX C C-29

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Selected crops harvested —Con.											
	Tobacco								Soybeans for beans			
	Farms		Acres		Quantity		Farms		Acres		Quantity	
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Pounds	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Bushels	Relative standard error of estimate (percent)
<b>Virginia</b>	<b>8 444</b>	<b>1.2</b>	<b>55 419</b>	<b>.9</b>	<b>113 240 049</b>	<b>.8</b>	<b>3 709</b>	<b>1.1</b>	<b>507 878</b>	<b>.5</b>	<b>15 742 573</b>	<b>.5</b>
Accomack	—	—	—	—	—	—	172	1.4	48 843	.9	1 513 782	.8
Albemarle	—	—	—	—	—	—	7	8.7	442	4.9	9 725	3.9
Alleghany	—	—	—	—	—	—	—	—	—	—	—	—
Amelia	38	3.7	508	2.9	941 233	2.0	63	2.6	5 326	2.5	150 770	2.5
Amherst	5	11.5	(D)	(D)	(D)	(D)	—	—	—	—	—	—
Appomattox	20	6.9	160	2.7	289 628	2.4	10	6.6	1 409	1.1	39 040	1.4
Arlington	—	—	—	—	—	—	—	—	—	—	—	—
Augusta	1	37.3	(D)	(D)	(D)	(D)	33	2.2	1 241	.5	40 118	.4
Bath	—	—	—	—	—	—	—	—	—	—	—	—
Bedford	20	6.2	140	7.1	244 119	6.6	3	11.7	(D)	(D)	(D)	(D)
Bland	43	4.3	128	8.9	189 457	8.3	2	15.9	(D)	(D)	(D)	(D)
Botetourt	—	—	—	—	—	—	1	—	—	—	—	—
Brunswick	174	1.9	2 871	.9	5 756 085	.8	91	2.6	5 292	1.6	140 466	1.4
Buchanan	61	3.5	105	4.4	187 363	4.2	—	—	—	—	—	—
Buckingham	15	8.0	38	10.4	50 205	10.2	—	—	—	—	—	—
Campbell	107	2.4	1 079	1.8	2 305 132	2.0	65	2.9	2 670	5.0	57 811	4.3
Caroline	4	14.9	10	30.4	14 446	37.9	72	2.4	16 641	1.1	512 118	1.3
Carroll	—	—	—	—	—	—	—	—	—	—	—	—
Charles City	—	—	—	—	—	—	23	3.5	9 089	.4	294 150	.4
Charlotte	216	2.2	2 411	1.7	4 779 067	1.7	16	8.1	398	10.8	10 608	11.3
Chesterfield	10	5.1	134	3.6	344 963	2.5	23	4.8	2 073	3.3	68 469	2.2
Clarke	—	—	—	—	—	—	14	5.1	963	3.9	37 322	3.6
Craig	—	—	—	—	—	—	—	—	—	—	—	—
Culpeper	—	—	—	—	—	—	27	4.3	2 750	1.9	97 165	2.2
Cumberland	19	4.8	92	7.2	145 564	4.6	7	5.7	225	4.1	5 485	2.9
Dickenson	29	5.7	44	6.8	80 542	8.0	—	—	—	—	—	—
Dinwiddie	121	2.3	1 627	1.5	3 849 724	1.5	128	2.2	11 422	1.2	349 454	1.1
Essex	—	—	—	—	—	—	80	2.2	20 634	1.2	620 473	1.1
Fairfax	2	27.9	(D)	(D)	(D)	(D)	—	—	—	—	—	—
Fauquier	—	—	—	—	—	—	46	3.3	4 629	2.0	154 168	2.1
Floyd	21	5.5	51	8.2	76 354	10.3	—	—	—	—	—	—
Fluvanna	1	28.7	(D)	(D)	(D)	(D)	9	7.4	398	7.1	7 730	9.9
Franklin	137	2.1	1 467	1.7	3 172 184	1.7	18	5.2	569	4.3	15 518	3.1
Frederick	—	—	—	—	—	—	3	—	210	—	6 840	—
Giles	1	26.6	(D)	(D)	(D)	(D)	1	—	(D)	(D)	(D)	(D)
Gloucester	—	—	—	—	—	—	48	2.4	9 954	1.9	310 688	1.5
Goochland	—	—	—	—	—	—	15	4.7	2 800	.9	64 835	.9
Grayson	322	1.6	565	2.3	956 528	2.5	—	—	—	—	—	—
Greene	—	—	—	—	—	—	2	14.1	(D)	(D)	(D)	(D)
Greensville	20	5.2	349	4.0	857 308	4.0	80	2.6	5 272	1.4	141 254	1.5
Halifax	651	1.6	8 388	1.0	16 901 418	.9	96	2.7	2 554	2.6	68 015	3.1
Hanover	1	46.6	(D)	(D)	(D)	(D)	137	1.9	20 074	.8	621 265	.8
Henrico	—	—	—	—	—	—	24	5.7	5 186	2.4	173 466	2.2
Henry	24	7.1	335	5.2	670 479	5.2	5	13.0	(D)	(D)	(D)	(D)
Highland	—	—	—	—	—	—	—	—	—	—	—	—
Isle of Wight	1	26.9	(D)	(D)	(D)	(D)	126	1.3	14 393	.5	466 776	.4
James City	—	—	—	—	—	—	12	5.1	1 591	.7	45 280	.9
King and Queen	—	—	—	—	—	—	92	1.9	20 174	1.0	593 357	1.0
King George	—	—	—	—	—	—	41	2.6	7 862	1.4	206 781	.9
King William	—	—	—	—	—	—	80	2.5	19 779	1.1	624 209	1.1
Lancaster	—	—	—	—	—	—	55	2.9	7 760	1.9	204 318	2.1
Lee	974	1.8	2 624	1.8	4 968 613	1.7	—	—	—	—	—	—
Loudoun	—	—	—	—	—	—	29	2.8	8 570	.5	286 976	.5
Louisa	11	7.0	35	7.9	51 091	8.3	33	4.1	1 504	1.9	45 103	1.9
Lunenburg	138	2.0	2 482	.9	5 193 211	.9	33	4.0	1 567	2.3	35 628	2.8
Madison	—	—	—	—	—	—	11	5.3	676	1.9	21 973	1.9
Mathews	—	—	—	—	—	—	24	3.8	2 438	5.0	59 476	5.2
Mecklenburg	304	1.4	5 629	.7	12 228 156	.7	102	2.3	7 474	.9	223 150	1.0
Middlesex	—	—	—	—	—	—	45	3.7	6 682	2.6	212 309	2.5
Montgomery	13	5.3	12	9.2	16 478	8.3	3	13.9	(D)	(D)	(D)	(D)
Nelson	2	28.2	(D)	(D)	(D)	(D)	—	—	—	—	—	—
New Kent	—	—	—	—	—	—	29	3.3	6 041	.9	183 546	.9
Northampton	—	—	—	—	—	—	114	1.8	23 231	.9	777 091	.9
Northumberland	—	—	—	—	—	—	99	1.5	17 363	1.0	544 034	1.0
Nottoway	68	3.0	935	1.5	1 538 902	1.4	29	4.5	821	3.6	18 517	3.2
Orange	2	17.3	(D)	(D)	(D)	(D)	19	3.6	1 622	1.5	47 008	1.4
Page	2	17.2	(D)	(D)	(D)	(D)	8	4.3	112	.6	4 013	.4
Patrick	90	3.0	870	2.5	1 722 803	2.4	10	8.8	105	4.2	2 549	3.5
Pittsylvania	658	1.1	11 597	.7	24 663 930	.6	169	1.9	4 649	1.3	117 775	1.4
Powhatan	3	20.3	26	34.0	(D)	(D)	15	6.9	1 022	10.3	30 519	10.1
Prince Edward	75	2.7	676	1.8	1 140 413	1.7	15	6.2	402	3.1	11 573	5.9
Prince George	1	—	(D)	(D)	(D)	(D)	73	1.9	10 449	1.4	345 670	1.5
Prince William	—	—	—	—	—	—	8	8.2	817	4.0	24 872	3.5
Pulaski	1	—	(D)	(D)	(D)	(D)	1	23.2	(D)	(D)	(D)	(D)
Rappahannock	—	—	—	—	—	—	1	—	(D)	(D)	(D)	(D)
Richmond	—	—	—	—	—	—	102	2.2	13 507	1.5	419 801	1.5
Roanoke	—	—	—	—	—	—	1	32.1	(D)	(D)	(D)	(D)
Rockbridge	—	—	—	—	—	—	9	6.1	308	4.3	8 280	5.2
Rockingham	—	—	—	—	—	—	52	1.8	2 165	1.6	83 508	1.5

See footnotes at end of table.

## C-30 APPENDIX C

## 1992 CENSUS OF AGRICULTURE

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Selected crops harvested —Con.											
	Tobacco								Soybeans for beans			
	Farms		Acres		Quantity		Farms		Acres		Quantity	
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Pounds	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Bushels	Relative standard error of estimate (percent)
Russell -----	792	1.9	1 958	2.1	4 056 908	1.9	1	—	(D)	(D)	(D)	(D)
Scott -----	1 151	1.5	2 880	1.6	5 629 471	1.4	—	34	3.0	1.3	80 957	1.1
Shenandoah -----	—	—	—	—	—	—	—	—	(D)	(D)	(D)	(D)
Smyth -----	510	1.4	1 071	1.4	1 936 305	1.4	1	—	(D)	(D)	(D)	(D)
Southampton -----	2	—	(D)	(D)	(D)	(D)	223	1.1	20 331	.6	648 911	.6
Spotsylvania -----	—	—	—	—	—	—	38	4.0	3 049	3.6	94 061	4.0
Stafford -----	—	—	—	—	—	—	22	5.1	1 719	2.9	59 434	3.2
Surry -----	—	—	—	—	—	—	87	1.9	11 294	.6	327 713	.6
Sussex -----	13	2.8	235	.2	486 659	.2	105	1.6	16 310	.5	498 621	.5
Tazewell -----	56	4.1	96	5.7	181 527	5.7	—	—	—	—	—	—
Warren -----	—	—	—	—	—	—	1	38.4	(D)	(D)	(D)	(D)
Washington -----	1 484	1.3	3 550	1.2	7 041 033	1.2	—	—	(D)	(D)	(D)	(D)
Westmoreland -----	—	—	—	—	—	—	105	1.9	18 699	1.1	514 862	1.0
Wise -----	20	7.3	40	5.2	55 442	6.1	—	—	—	—	—	—
Wythe -----	9	7.6	26	14.8	54 033	13.9	—	—	—	—	—	—
York -----	—	—	—	—	—	—	8	11.9	302	20.0	6 557	22.6
Chesapeake (IC) -----	—	—	—	—	—	—	89	2.3	27 653	.7	907 689	.6
Suffolk (IC) -----	1	—	(D)	(D)	(D)	(D)	164	1.5	18 884	.6	607 862	.6
Virginia Beach (IC) -----	—	—	—	—	—	—	69	2.2	22 220	.5	805 652	.4
Geographic area	Selected crops harvested —Con.											
	Peanuts for nuts						Hay —alfalfa, other tame, small grain, wild, grass silage, green chop, etc. (see text)					
	Farms		Acres		Quantity		Farms		Acres		Quantity	
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Pounds	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Tons, dry	Relative standard error of estimate (percent)
Virginia -----	935	1.1	93 720	.3	258 551 252	.3	25 282	1.0	1 101 530	.9	2 180 604	.8
Accomack -----	2	—	(D)	(D)	(D)	(D)	15	6.8	181	5.3	442	4.6
Albermarle -----	1	37.1	(D)	(D)	(D)	(D)	444	1.4	34 086	1.2	59 390	1.2
Alleghany -----	—	—	—	—	—	—	116	1.7	3 014	2.2	4 766	2.5
Amelia -----	—	—	—	—	—	—	183	1.5	9 121	1.7	22 646	1.6
Amherst -----	—	—	—	—	—	—	275	1.5	11 893	2.2	24 280	2.6
Appomattox -----	—	—	—	—	—	—	276	1.4	14 644	1.7	26 198	2.0
Arlington -----	—	—	—	—	—	—	—	—	—	—	—	—
Augusta -----	2	14.8	(D)	(D)	(D)	(D)	1 016	.8	50 023	.8	113 620	.8
Bath -----	1	33.1	(D)	(D)	(D)	(D)	86	1.7	5 763	1.4	8 082	1.9
Bedford -----	1	24.9	(D)	(D)	(D)	(D)	940	1.0	42 586	1.1	80 960	1.1
Bland -----	—	—	—	—	—	—	258	1.4	8 740	1.7	15 296	2.1
Botetourt -----	—	—	—	—	—	—	375	1.0	15 461	1.6	28 878	1.7
Brunswick -----	2	—	(D)	(D)	(D)	(D)	171	2.0	7 123	2.2	16 836	2.4
Buchanan -----	—	—	—	—	—	—	48	4.3	624	6.0	1 077	6.7
Buckingham -----	—	—	—	—	—	—	255	1.3	12 875	1.8	23 310	2.2
Campbell -----	—	—	—	—	—	—	425	1.2	21 400	1.5	39 306	1.1
Caroline -----	—	—	—	—	—	—	99	2.0	3 389	2.7	7 436	2.7
Carroll -----	—	—	—	—	—	—	622	1.2	20 893	1.4	37 553	1.4
Charles City -----	—	—	—	—	—	—	23	6.1	1 186	11.3	1 985	8.2
Charlotte -----	—	—	—	—	—	—	252	1.9	11 721	2.4	23 304	2.5
Chesterfield -----	—	—	—	—	—	—	68	2.6	1 713	5.1	2 643	4.6
Clarke -----	—	—	—	—	—	—	196	1.4	15 137	1.5	29 652	1.9
Craig -----	—	—	—	—	—	—	137	1.1	7 122	2.9	11 898	1.7
Culpeper -----	—	—	—	—	—	—	336	1.3	25 363	1.5	50 809	1.6
Cumberland -----	—	—	—	—	—	—	166	1.3	9 451	1.8	20 608	1.6
Dickenson -----	—	—	—	—	—	—	67	3.4	1 020	5.9	1 453	7.8
Dinwiddie -----	37	3.9	2 535	1.5	7 141 425	1.5	133	2.4	4 697	2.2	9 016	2.4
Essex -----	—	—	—	—	—	—	15	7.1	496	5.4	963	5.5
Fairfax -----	—	—	—	—	—	—	42	4.6	1 359	5.1	2 193	5.2
Fauquier -----	—	—	—	—	—	—	533	1.3	43 462	1.0	85 769	1.0
Floyd -----	—	—	—	—	—	—	582	.9	20 820	1.2	47 904	1.3
Fluvanna -----	—	—	—	—	—	—	174	1.4	9 348	1.9	17 187	2.4
Franklin -----	—	—	—	—	—	—	673	1.1	27 726	1.0	58 517	1.1
Frederick -----	—	—	—	—	—	—	338	1.2	20 030	1.5	35 982	1.7
Giles -----	—	—	—	—	—	—	252	1.5	7 516	1.8	14 742	2.5
Gloucester -----	—	—	—	—	—	—	33	4.1	901	5.1	2 659	6.0
Goochland -----	—	—	—	—	—	—	157	1.8	8 402	2.0	14 781	2.4
Grayson -----	—	—	—	—	—	—	572	1.1	19 021	1.2	36 042	1.2
Greene -----	—	—	—	—	—	—	147	1.8	6 689	4.0	13 711	2.8
Greensville -----	90	2.4	8 196	.8	22 512 738	.8	21	6.4	1 089	12.9	1 304	10.9
Halifax -----	—	—	—	—	—	—	463	1.6	15 820	1.7	23 771	1.8
Hanover -----	2	17.3	(D)	(D)	(D)	(D)	275	1.6	13 208	1.3	29 739	1.3
Henrico -----	—	—	—	—	—	—	72	3.0	2 089	3.8	3 738	3.6
Henry -----	—	—	—	—	—	—	161	2.4	6 974	3.2	10 854	3.4
Highland -----	—	—	—	—	—	—	209	1.4	9 093	2.2	15 973	2.5
Isle of Wight -----	160	1.1	14 867	.4	37 888 651	.4	15	4.0	999	1.2	3 032	.3
James City -----	—	—	—	—	—	—	20	4.6	609	3.9	1 021	2.5
King and Queen -----	—	—	—	—	—	—	33	4.1	1 297	4.8	2 477	5.2
King George -----	—	—	—	—	—	—	67	2.1	3 196	2.9	5 250	3.0

See footnotes at end of table.

## 1992 CENSUS OF AGRICULTURE

## APPENDIX C C-31

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Selected crops harvested —Con.											
	Peanuts for nuts						Hay—alfalfa, other tame, small grain, wild, grass silage, green chop, etc. (see text)					
	Farms		Acres		Quantity		Farms		Acres		Quantity	
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Pounds	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Tons, dry	Relative standard error of estimate (percent)
King William -----	-	-	-	-	-	-	32	4.9	1 386	2.4	3 959	1.9
Lancaster -----	-	-	-	-	-	-	7	11.5	93	8.6	134	10.4
Lee -----	-	-	-	-	-	-	715	1.8	17 107	1.7	31 306	1.9
Loudoun -----	-	-	-	-	-	-	569	1.3	39 367	1.1	72 591	1.1
Louisa -----	-	-	-	-	-	-	252	1.6	15 291	1.6	34 342	1.6
Lunenburg -----	-	-	-	-	-	-	212	1.7	8 833	1.8	14 303	1.9
Madison -----	1	23.3	(D)	(D)	(D)	(D)	298	1.0	18 871	1.2	43 571	1.2
Mathews -----	-	-	-	-	-	-	22	4.7	325	6.1	415	6.6
Mecklenburg -----	1	28.8	(D)	(D)	(D)	(D)	379	1.5	16 383	1.4	28 877	1.4
Middlesex -----	-	-	-	-	-	-	37	4.8	1 332	5.2	2 330	4.8
Montgomery -----	-	-	-	-	-	-	391	1.1	16 605	1.0	33 738	1.1
Nelson -----	-	-	-	-	-	-	240	1.7	10 688	2.3	18 939	3.1
New Kent -----	-	-	-	-	-	-	25	4.6	650	7.6	839	6.7
Northampton -----	4	-	283	-	875 004	-	6	11.3	107	30.5	203	32.1
Northumberland -----	-	-	-	-	-	-	17	6.5	316	4.9	725	5.6
Nottoway -----	1	-	(D)	(D)	(D)	(D)	220	1.7	9 896	2.3	19 196	2.0
Orange -----	-	-	-	-	-	-	295	1.6	22 990	1.5	44 182	1.5
Page -----	-	-	-	-	-	-	327	1.3	12 825	1.6	28 466	2.1
Patrick -----	-	-	-	-	-	-	373	1.6	10 026	1.7	18 480	1.9
Pittsylvania -----	1	32.5	(D)	(D)	(D)	(D)	768	1.2	27 359	1.3	44 286	1.4
Powhatan -----	-	-	-	-	-	-	129	2.0	7 275	2.3	12 744	2.2
Prince Edward -----	1	21.8	(D)	(D)	(D)	(D)	196	1.6	10 080	1.5	23 116	1.7
Prince George -----	32	2.8	3 089	.8	9 362 627	.5	53	2.7	1 541	5.5	2 836	4.2
Prince William -----	-	-	-	-	-	-	166	1.8	8 031	2.9	14 822	4.4
Pulaski -----	-	-	-	-	-	-	270	1.4	14 449	1.2	32 889	1.2
Rappahannock -----	1	27.9	(D)	(D)	(D)	(D)	199	1.4	15 168	1.4	30 353	1.2
Richmond -----	-	-	-	-	-	-	33	5.1	1 196	7.6	2 450	6.5
Roanoke -----	-	-	-	-	-	-	153	1.9	4 347	3.0	8 485	4.0
Rockbridge -----	-	-	-	-	-	-	446	1.3	22 442	1.3	42 698	1.3
Rockingham -----	1	26.8	(D)	(D)	(D)	(D)	1 226	.7	49 610	.6	125 531	.6
Russell -----	-	-	-	-	-	-	725	1.8	17 818	1.8	37 392	1.9
Scott -----	-	-	-	-	-	-	876	1.6	16 319	1.8	28 537	1.8
Shenandoah -----	-	-	-	-	-	-	580	1.0	24 376	1.2	51 387	1.3
Smyth -----	-	-	-	-	-	-	521	1.2	16 942	1.0	32 848	1.0
Southampton -----	247	1.0	30 927	.3	88 905 199	.3	19	5.3	987	8.4	1 644	14.7
Spotsylvania -----	-	-	-	-	-	-	177	1.7	9 431	2.4	19 578	2.0
Stafford -----	1	-	(D)	(D)	(D)	(D)	117	1.5	3 598	2.3	6 037	3.2
Surry -----	77	1.7	7 186	.5	20 433 371	.4	9	8.2	502	2.6	1 665	1.1
Sussex -----	110	1.3	11 619	.6	33 081 998	.6	9	10.3	215	4.3	(D)	(D)
Tazewell -----	-	-	-	-	-	-	338	1.5	15 724	1.2	32 797	1.2
Warren -----	-	-	-	-	-	-	146	1.9	8 652	3.0	15 872	3.5
Washington -----	-	-	-	-	-	-	1 113	1.3	29 839	1.0	58 046	1.1
Westmoreland -----	-	-	-	-	-	-	40	3.5	1 533	3.8	4 369	2.3
Wise -----	-	-	-	-	-	-	71	3.6	1 905	5.7	2 746	5.8
Wythe -----	-	-	-	-	-	-	567	1.0	27 089	1.1	57 012	1.1
York -----	-	-	-	-	-	-	7	13.9	124	15.2	(D)	(D)
Chesapeake (IC) -----	2	1.5	14 409	.5	36 867 322	.6	35	4.6	975	4.0	1 592	3.6
Suffolk (IC) -----	156	-	(D)	(D)	(D)	(D)	19	6.3	946	3.7	959	3.5
Virginia Beach (IC) -----	1	40.0	(D)	(D)	(D)	(D)	21	6.5	596	6.4	930	4.7
Geographic area	Selected crops harvested —Con.											
	Land in orchards											
	Farms						Acres					
	Number		Relative standard error of estimate (percent)		Number		Relative standard error of estimate (percent)		Number		Relative standard error of estimate (percent)	
Virginia -----	1 387	-	1.1	-	-	-	32 963	-	-	-	.7	
Accomack -----	10	-	9.4	-	-	-	124	-	-	-	8.6	
Alebermarle -----	68	-	3.4	-	-	-	1 957	-	-	-	1.3	
Alleghany -----	3	-	22.9	-	-	-	(D)	-	-	-	(D)	
Amelia -----	3	-	18.2	-	-	-	16	-	-	-	17.3	
Amherst -----	21	-	6.8	-	-	-	455	-	-	-	6.0	
Appomattox -----	7	-	13.0	-	-	-	31	-	-	-	15.7	
Arlington -----	-	-	-	-	-	-	-	-	-	-	-	
Augusta -----	28	-	5.2	-	-	-	255	-	-	-	5.6	
Bath -----	8	-	9.1	-	-	-	30	-	-	-	11.1	
Bedford -----	38	-	4.6	-	-	-	524	-	-	-	3.4	
Bland -----	2	-	25.2	-	-	-	(D)	-	-	-	(D)	
Botetourt -----	26	-	5.0	-	-	-	718	-	-	-	1.9	
Brunswick -----	3	-	14.1	-	-	-	28	-	-	-	21.6	
Buchanan -----	3	-	19.2	-	-	-	4	-	-	-	19.3	
Buckingham -----	6	-	12.6	-	-	-	19	-	-	-	15.2	
Campbell -----	10	-	9.3	-	-	-	15	-	-	-	11.9	
Caroline -----	9	-	9.6	-	-	-	67	-	-	-	10.2	
Carroll -----	66	-	3.2	-	-	-	881	-	-	-	2.9	
Charles City -----	6	-	14.3	-	-	-	35	-	-	-	24.5	

See footnotes at end of table.

## C-32 APPENDIX C

## 1992 CENSUS OF AGRICULTURE

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Selected crops harvested —Con.			
	Land in orchards			
	Farms		Acres	
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)
Charlotte -----	6	11.2	12	15.8
Chesterfield -----	10	7.9	39	20.5
Clarke -----	22	4.6	3 296	1.1
Craig -----	2	17.9	(D)	(D)
Culpeper -----	9	8.1	77	3.4
Cumberland -----	5	11.3	28	5.2
Dickenson -----	2	23.6	(D)	(D)
Dinwiddie -----	9	11.2	10	12.7
Essex -----	1	50.0	(D)	(D)
Fairfax -----	7	13.9	18	16.6
Fauquier -----	59	3.6	697	4.5
Floyd -----	23	5.4	213	2.6
Fluvanna -----	13	7.9	43	11.5
Franklin -----	45	4.4	693	3.7
Frederick -----	89	2.3	9 743	.4
Giles -----	10	7.2	202	5.8
Gloucester -----	6	12.1	30	21.9
Goochland -----	5	13.1	16	9.1
Grayson -----	9	10.1	76	4.1
Greene -----	14	8.3	87	13.9
Greenville -----	1	38.6	(D)	(D)
Halifax -----	16	8.7	44	10.3
Hanover -----	10	8.6	20	11.1
Henrico -----	5	13.5	22	16.4
Henry -----	11	9.9	111	13.0
Highland -----	9	7.5	18	6.2
Isle of Wight -----	6	12.3	14	12.2
James City -----	13	5.8	147	2.4
King and Queen -----	4	12.1	8	7.1
King George -----	11	8.2	56	9.4
King William -----	3	28.0	11	31.4
Lancaster -----	1	50.0	(D)	(D)
Lee -----	15	8.2	34	10.3
Loudoun -----	59	3.9	281	5.3
Louisa -----	11	10.0	24	10.5
Lunenburg -----	8	10.2	23	15.6
Madison -----	23	5.4	615	3.2
Mathews -----	1	27.6	(D)	(D)
Mecklenburg -----	15	8.6	23	12.6
Middlesex -----	3	14.4	17	7.9
Montgomery -----	11	7.8	54	11.2
Nelson -----	31	4.8	1 421	1.5
New Kent -----	2	20.5	(D)	(D)
Northampton -----	3	19.3	(D)	(D)
Northumberland -----	3	19.6	10	29.3
Nottoway -----	4	17.4	8	26.7
Orange -----	17	7.3	276	1.8
Page -----	10	8.4	57	5.7
Patrick -----	62	4.1	812	4.3
Pittsylvania -----	23	6.5	99	11.4
Powhatan -----	3	14.3	10	9.3
Prince Edward -----	11	7.5	56	4.6
Prince George -----	3	13.2	9	13.3
Prince William -----	6	14.1	15	15.7
Pulaski -----	6	10.4	24	11.8
Rappahannock -----	53	3.1	1 503	3.0
Richmond -----	1	40.0	(D)	(D)
Roanoke -----	30	4.8	346	5.6
Rockbridge -----	11	8.5	73	10.1
Rockingham -----	46	3.9	2 150	1.7
Russell -----	6	14.8	7	18.2
Scott -----	12	9.3	35	10.3
Shenandoah -----	25	5.4	2 668	6.6
Smyth -----	10	9.4	138	5.3
Southampton -----	5	15.5	51	17.7
Spotsylvania -----	4	19.2	28	22.2
Stafford -----	7	10.1	37	15.4
Surry -----	3	18.0	10	15.4
Sussex -----	1	—	(D)	(D)
Tazewell -----	9	9.8	16	12.0
Warren -----	8	6.3	(D)	(D)
Washington -----	14	8.9	17	12.5
Westmoreland -----	12	8.6	96	4.1
Wise -----	5	12.2	57	9.9
Wythe -----	13	7.0	99	6.6
York -----	6	14.0	23	23.5
Chesapeake (IC) -----	8	11.0	20	14.1
Suffolk (IC) -----	6	12.7	38	26.8
Virginia Beach (IC) -----	9	10.3	39	7.6

<sup>1</sup>Data are based on a sample of farms.

## 1992 CENSUS OF AGRICULTURE

## APPENDIX C C-33

**Table G. State Estimates of the Not on the Mail List Component of Farm Coverage Error:  
1992**

[Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text]

Item	Census published farms		Not on mail list <sup>1</sup>		Percent not on mail list <sup>1</sup>	
	Total (number)	Relative standard error of estimate (percent)	Total (number)	Relative standard error of estimate (percent)	Total (percent)	Standard error of percent
Farms ----- number	42 222	1.9	7 615	20.6	15.3	2.7
Land in farms ----- acres	8 297 011	1.0	424 612	24.0	4.9	1.1
Average size of farm ----- acres	196.5	.9	55.8	15.4	(X)	(X)
Farms by size:						
Less than 10 acres -----	3 357	2.2	1 590	45.1	32.1	9.7
10 to 49 acres -----	10 361	2.4	3 109	26.5	23.1	4.7
Less than 50 acres -----	13 718	2.3	4 699	26.1	25.5	4.9
50 acres or more -----	28 504	1.7	2 916	27.2	9.3	2.3
50 to 99 acres -----	8 464	2.4	1 404	40.4	14.2	5.0
100 to 179 acres -----	7 829	2.0	988	46.1	11.2	4.6
180 acres or more -----	12 211	1.2	524	54.5	4.1	2.1
Harvested cropland ----- farms	34 255	1.8	5 172	21.5	13.1	2.5
acres	2 449 013	.7	79 820	24.9	3.2	.8
Farms by value of sales:						
Less than \$1,000 -----	4 601	2.2	3 465	30.4	43.0	7.4
\$1,000 to \$2,499 -----	5 945	2.4	2 204	35.7	27.0	7.0
Less than \$2,500 -----	10 546	2.3	5 669	26.9	35.0	6.1
\$2,500 or more -----	31 676	1.8	1 946	26.2	5.8	1.4
\$2,500 to \$9,999 -----	14 848	2.7	1 522	31.1	9.3	2.6
\$10,000 or more -----	16 828	1.3	424	40.0	2.5	1.0
Market value of agricultural products sold    \$1,000	2 055 958	.4	24 786	25.7	1.2	.3
Farms by standard industrial classification:						
Crops (01) -----	15 573	2.0	2 958	27.5	16.0	3.7
Livestock (02) -----	26 649	1.8	4 160	29.8	13.5	3.5
Farms by type of organization:						
Individual or family -----	36 866	1.9	6 849	21.4	15.7	2.9
Partnership or corporation -----	5 113	1.4	261	92.9	4.9	4.3
Other -----	243	2.4	-	(X)	-	(X)
Farms by tenure of operator:						
Full owners -----	26 492	2.1	5 942	22.5	18.3	3.4
Part owners and tenants -----	15 730	1.6	1 425	33.9	8.3	2.6
Part owners -----	12 599	1.5	1 388	34.7	9.9	3.1
Tenants -----	3 131	2.0	38	58.8	1.2	.7
Operators by place of residence:						
On farm operated -----	30 940	1.8	4 961	21.7	13.8	2.6
Not on farm operated -----	8 071	2.0	1 357	46.5	14.4	5.6
Not reported -----	3 211	2.0	1 297	40.8	28.8	8.5
Operators by principal occupation:						
Farming -----	19 571	1.6	1 905	30.3	8.9	2.4
Other -----	22 651	2.2	5 152	24.2	18.5	3.7
Operators by sex:						
Male -----	37 993	1.8	7 011	21.5	15.6	2.9
Female -----	4 229	2.1	357	66.1	7.8	4.7
Operators by race:						
White -----	40 838	1.8	6 674	20.9	14.0	2.5
Black and other races -----	1 384	2.5	384	59.7	21.7	10.1
Operators by years on present farm:						
4 years or less -----	4 763	2.0	1 136	38.4	19.3	5.9
5 years or more -----	29 329	1.8	3 842	24.4	11.6	2.5
Average years on present farm -----	19.8	2.6	12.6	24.6	(X)	(X)
Not reported -----	8 130	2.1	2 636	32.3	24.5	6.1
Average age of operator -----	55.6	.1	55.5	20.1	(X)	(X)

NOTE: These estimates do not account for incorrectly classified farms or farms appearing more than once in the census and are subject to change in the 1992 Coverage Evaluation publication. See appendix C text for further explanation.

<sup>1</sup>Estimates are based on a sample survey conducted independently of census data collection.